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Reforming decentralized
integrated health care
systems:

Theory and the case of the
Norwegian reform

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Reforming decentralized integrated health care systems: Theory and the case of the Norwegian reform

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Abstract

In this essay a conceptual and theoretical scheme for decentralized integrated health care systems of the northern European kind is developed. With small changes it is also applicable to other countries, e.g. Italy, Spain, and Portugal. Three ideas tie together the scheme: modified fiscal federalism, principal-agent thinking and the analysis of discrete structural alternatives from new institutional economics. As a special case it encompasses the ideas of planned markets and public competition developed by von Otter and Saltman. The scheme can be used to analyse driving forces behind reforms and prediction of effects.

To illustrate the thinking the recent Norwegian reform is put into context, not only geographically but also theoretically. The geographical context is that of Scandinavia and there is a summary of reforms in the Scandinavian countries over the past 20-30 years. The essay thus serves the double purpose of presenting and evaluating the Norwegian reform in a Scandinavian context and to take part in the neglected discipline of developing a theory of health care reform.

The Norwegian January 2002 reform is described in some detail. It is a reversal of the Scandinavian model of decentralization and a move towards more centralism. The hospital system was transferred to the state that established five regions with independent (non-political) boards and each region has a number of daughters (hospitals) that have great autonomy with their own boards and are outside the legal restrictions of the public sector. Basically the idea is to mimic the corporate structure of large private companies.

The reform is evaluated based on principal-agent thinking and the analysis of discrete structural alternatives. Overall there is no a priori reason to expect large improvements in efficiency – but on the other hand neither should one expect things to get worse. Many effects depend, however, crucially, on (a) the financing system that will be put in place late 2002 or early 2003, and (b) whether or not the political and management culture change as a result of the reform.

In the concluding sections possible implications for Denmark and Sweden are discussed.

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Introduction¹

Reforms have gone like a whirlwind over Europe during the 90ies. Much has been written about actual or planned reforms and considerably less about implementation and (lack of) success, e.g.[1,2,3,4,5,6,7,8,9,10,11,12,13,14].

The two most recent reforms in northern Europe are the Norwegian one – implemented January 1, 2002, and the April 2002 announcement of yet another round of reforming the NHS, [15], based on the report by the former bank executive Derek Wanless, [16], supported by a team from HM Treasury – showing where health policy in reality is being shaped, like in most other countries. The reform will be accompanied by a 7.4% annual real increases in resources for a number of years to catch up with the elusive average of EU-countries (an interesting catch-up game if everybody sets this goal) – accompanied by a tax increase to finance it. Reform elements include free patient choice like what is seen in Scandinavia and more focused (economic) incentives at the organizational and individual level.

The term ‘reform’ has been used indiscriminately to describe almost any significant and not-so-significant change in a national health care system. In terms of English language articles reforms in New Zealand, Sweden, the Netherlands, and the UK are the most numerous. On top of this come the prolific writings by US researchers on the managed care and managed competition revolution in the US.

The aim of this paper is to put the recent Norwegian reform into perspective and evaluate expected results compared with the old county based structure. The reform is also contrasted with what has happened in the other Scandinavian countries, in part to speculate on the driving forces behind different approaches to reform: evolutionary approaches vs. large, blue print based reforms. The following section discusses the need for reform, or rather, is there a need for reform and why. This is followed by a summary of what has happened in the Scandinavian countries in the last quarter of a century. A broad theoretical framework for the analysis and classification of reforms is developed next. Then attention is turned toward the Norwegian reform: what are the components of the reform, what are the officially expected results and the underlying theoretical rationale. After this there is an evaluation of the reform, partly based on a principal-agent approach, partly on discrete structural analysis from neo institutional theory.

Is there a need for reform?

Many observers (still) see a need for reform, and a majority of those see some kind of market orientation as an important part of the solution, be it internal markets, DRG, co-payment, risk adjustment, increased competition in general etc.,. Many of these observers are economists, and they come to the table with the economists’ battle cry: why not consider more market and more competition (somehow defined)². And politicians and decision makers should take note of Keynes’:

¹ Partly presented at the Annual conference for Norwegian Health Economists, May 14, 2002 under the title: ‘Norske helsereformer i nordisk perspektiv’(Norwegian health reforms in a Nordic perspective).

² The terminology is annoyingly imprecise. Almost anything is accepted as ‘market orientation’ or ‘competition’. What are the necessary and sufficient conditions, however, as commonly defined in economics. For instance, some see the introduction of DRG as a move towards market orientation. It seems that at best it is only a necessary move, e.g. establishing (a uniform, cost based) ‘price’. Is free choice of hospital by patients an example of increased competition? At best, again, a necessary condition. Is increased competition in the insurance area really what we see in systems with a)

‘the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist’ (The General Theory of Employment, p.383)

Many of the ideas are taken right out of basic neoclassical micro economics texts and (often) rely on traditional paretian welfare economics as justification - the standard market failure approach - for proposed reforms – with all the non sequitur conclusions.. All health care systems seem to be lacking in efficiency (be technical or allocative) according to these observers, however undocumented and with an unclear comparator. Very little progress has been made towards actually quantifying it³. Or is it really the perfect competitive model of the economy that is lurking in the background?⁴. The implicit assumption is that non-market systems are inherently inefficient⁵.

Is it really relevant to compare the imperfect – be it imperfect markets, imperfectly regulated markets or public sector provision – with a perfect alternative like the perfectly competitive solution from the text books, or should an imperfect situation be compared with other imperfect solutions. However, the latter discipline is less developed, in particular at the system level. A modest attempt is done later in this paper. What is needed is a theory of ‘planned’ markets, not in the sense of Oscar Lange’s idealised socialist economy, but in merging sound economics, including public choice, modern organization theory/neo-institutional theory, and elements from political science. Not only will health care markets always be planned markets at best, but to a considerable extent they will be politically planned markets,

compulsory insurance, b) fixed premiums, and c) equalization of risk among (non-profit) insurers? It is not price competition, at least. From an economic point of view it seems that supply and demand being governed by price is a relevant prerequisite – and difficult to find in many health care systems, where ‘price’ on the demand side seems substituted by quality as the important choice parameter and where supply is driven by a number of considerations among which price/cost is only one – often in a monopoly supplier market. An acknowledged experts notes: ‘Still, it is striking that economists so consistently opt for a model [... the perfectly competitive] with so little apparent descriptive value the dominance of perfectly competitive methods should probably be viewed as a reflection of the weakness of the imperfectly competitive analysis ... it [... the imperfect mode..] consists of too many models that yield conflicting predictions’, p. 534, 535, 538, [81]. - However, obviously there are other useful applications of economics, e.g. contracting, discrete structural models, principal-agent models, models of imperfect markets based on the theory of non-cooperative games etc.. Hence, we are not talking about irrelevance of economics as a rationale for reforms but rather criticising the loosely based appeal to notions like ‘market’ and ‘competition’ relying on implicit appeals to perfect competition or not reflecting the problems with models of imperfect competition. .

³ Most often ‘casual empiricism’ is applied, anecdotal evidence or sweeping generalizations. Like in the private sector there is always room for increasing productivity. Just consider the private sector catch-word in the early and mid 90ies about business process engineering – promising productivity increases between 10-20% by following the ideas of the prophets of that school of thought, [82,83]. Even in the competitive private sector there appears to be continual slack that can be taken away. – In the health care sector statements about for instance considerable ‘small area variations’, [84], or the lack of standardised patient protocols, i.e. a uniform and generally applicable ready-to-go technology, is taken as evidence about the potential for (technical) efficiency increases.

⁴ For a heated exchange on the (ir)relevance of welfare economics/neo classical economics and health care reform see Robert Evans, Thomas Rice, Mark Pauly, Martin Gaynor and William Vogt in Journal of Health Politics, Policy and Law, 22(2), 1998, reprinted in [85]. See also Culyer and Evans, [86]. What is apparent is that economists, often unwittingly, are influenced by their country of origin, and the health care system they have grown up with, i.e. that US economists to a larger extent accept efficiency issues in a competitive environment and neglect equity.

⁵ Which is true almost by definition as long as the comparator is the perfect market – despite the fact, that public sector involvement according to the same line of thinking is largely justified by market failure and hence almost by nature will be less than perfect? Are we applying circular thinking?

e.g. regulated uniform prices or tariffs, often politically determined, and various regulations like legislated free hospital choice. Ideally one should have an approach that spans hierarchies (non-markets), markets and hybrid forms, where the latter form seems to be important in view of the drive towards more market involvement in many countries. The theoretical approach could be that of transaction cost economics and the theory of analysing discrete structural alternatives, [17].

All health care systems face the challenge of containing growth in health care expenditures ('cost containment'). Some health care systems still face issues of equity (financially, universal access, health outcome, geographically, scope of services offered) – the US being the most obvious example among the OECD countries. Most importantly, many economists seem to forget the well-known trade-off between efficiency and equity – or seem to believe that efficiency (with some kind of perfect market as a back-drop) still can be increased without harming equity. It may be so, but there are no clear analytical models showing how⁶.

As an illustration of the ills that reforms are intended to remedy, it is illustrative to consider the recent Norwegian reform (described in detail below),[18]⁷.

- Inefficiency ('...dårlig ressursutnyttelse', '...konstateres at utnyttelsesgraden er generelt lav fordi mye utstyr i perioder står ubrukt')
 - 'if all hospitals were as efficient as the best, then societal costs theoretically would be 2.5 billion Nkr. lower' (actually a rather low number if one takes it as a percentage of total hospital costs, about 5%)
- Waiting lists ('manglende behandlingsskapasitet ... men likevel i for liten grad villing til å sende pasienter til andre som har ledig kapasitet').
- Lacking coordination among and within administrative levels.
- Inequality/inequity (in particular geographical access to the same type of services, '... likeverdige tjenester')
- Persistent economic problems despite 4.8% real growth per year after 1995
 - 50% growth in number of hospital doctors from 1990
- Unclear division of responsibility between the national level and the local (county) level.

Taken together this is assumed to be an indication of organizational, management and control problems ('styringsmessige problemer') in the Norwegian hospital sector. The reform described below is thought to remedy these problems (or at least do it better than the existing system).

⁶ To avoid any misunderstandings: the author *believes* in market mechanisms, but equally firmly adheres to applying good and sound economics adapted to the peculiarities of the health care sector along with stated goals about, in particular, equity. I do not have an ideological/value stance on market vs. public sector – so often implicit in writings on the topic. Fuchs has recommended larger recognition of value questions because it, not surprisingly, turns out that preferences for certain policy-recommendations largely are explained by value, not positive issues, [87]. He notes that health economists who are unanimous in approving gains in efficiency might have very different views regarding the desirability of equity changes and may also differ in the weights they give to changes in efficiency versus equity consequences. This theme is taken up in the theoretical section.

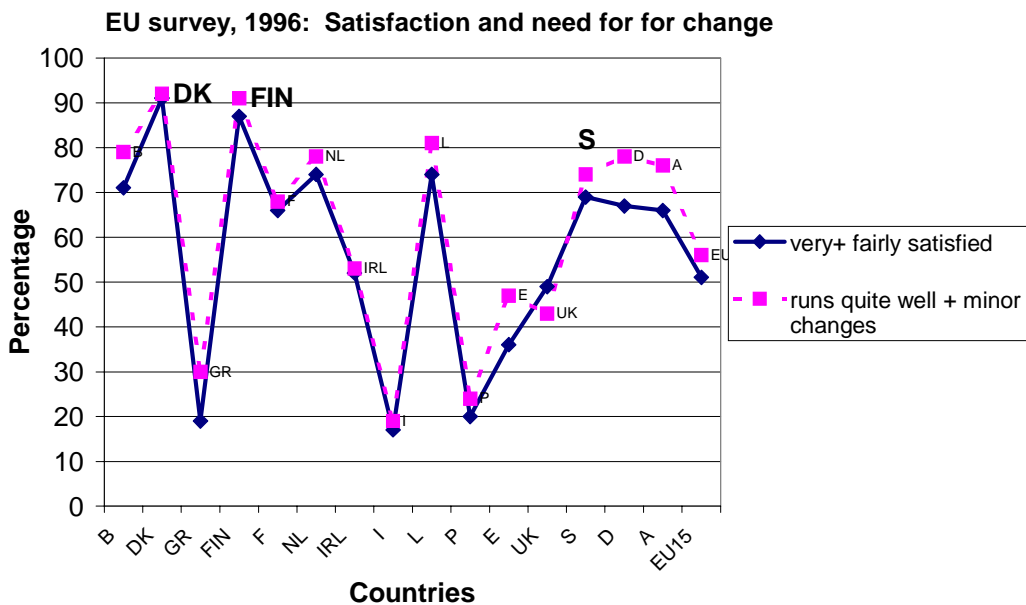
⁷ In the following the author's translation will appear, occasionally accompanied by bits of the original national language version so that national readers are able to identify exactly what is meant or hinted at.

As a general statement about the underlying reasons for reform one can of late add – at least in the Northern European context: (looming) staff shortages and an aging population (albeit less serious than in many other countries – but nevertheless one of the standard explanations for the need for reform). Furthermore, in the Norwegian case the real issue is not cost-containment per se – ‘the oil billions are still there’ – but rather frustration and surprise that increasing resources have not remedied the assumed ills, in particular waiting lists. This same surprise is seen both in Sweden and Denmark when special waiting list initiatives have been undertaken.

Reforms are the result of a political desire for change – or rather: political dissatisfaction with the existing state of affairs. ‘Politics’ is a dominant feature of health care systems worldwide. The political component is most pervasive in the Scandinavian and UK health care systems because those systems are tax financed and (at least) hospitals publicly owned and operated.

However, what is the opinion of the general population? Does it correlate with the political climate? Opinion polls sample, alas, opinions - opinions that often are transitory and short lived, and opinions that can be difficult to interpret and transform to action. Nevertheless, they also provide at least some food for thought and are a snapshot of sentiments at a particular point in time. With apologies to Norway the following is results from a fairly recent EU-opinion poll, [19]

Figure 1: Results from an EU-opinion poll about need for reform and satisfaction



In a 1996 survey respondents could indicate that they were either very or fairly satisfied/dissatisfied or neutral with regard to the national health care system, i.e. five response categories. The very or fairly satisfied/dissatisfied responses have been grouped together. Satisfaction with health care systems varies enormously. In Denmark and Finland around 90% were satisfied or very satisfied, while Portugal/Greece, Great Britain, and Italy came in at the bottom with around 20% satisfied/very satisfied. The EU average for either very or fairly satisfied was 51%.

Respondents were also asked to choose between one of the following ‘need for reform’ statements:

- on the whole, health care in our country runs quite well
- there are some good things ... and minor changes would make it work better
- there are some good things - but only fundamental changes would make it work better
- health care in our country run so badly that we need to rebuild it completely

The response to this question correlates highly with the satisfaction question. In figure 1 the first two categories have been collapsed as have the very and fairly satisfied for the satisfaction question

Patient satisfaction is a way to measure certain quality aspects of hospital care, in particular service quality. On this dimension it appears that Norway is doing reasonable well, but there is considerable dissatisfaction with waiting time for treatment and choice of hospital, [20]. (note: survey carried out before the free choice of hospital was introduced systematically in 1997). Danish patient surveys consistently show a very high degree of overall satisfaction, [21].

Without having much faith in the highly publicised World Health Report 2000 from WHO, [22,23], it may nevertheless be worthwhile to note the rankings of the Scandinavian countries, table 1. The *performance*-ranking is based on a production function approach and hence is a hypothetical ideal whereas the *attainment* score is based on actual numbers (albeit that 61% of numbers in the report were imputed, and higher for the Scandinavian countries). The overall attainment score is based on a weighted average of health (DALE), 0.25, equity in health (equality of child survival), 0.25; financial fairness, 0.25, responsiveness, 0.125 and distribution of responsiveness, 0.125. The same weights are applied to the (hypothetical) performance.

Table 1: Summary results from WHO’s World Health Report 2000 league table exercise

	Overall Performance Ranking, no.	Performance On health, DALE¹	Overall Attainment Ranking, no	Attainment On health DALE
Denmark	34	65	20	28
Finland	31	44	22	20
Norway	11	18	3	15
Sweden	23	21	4	4

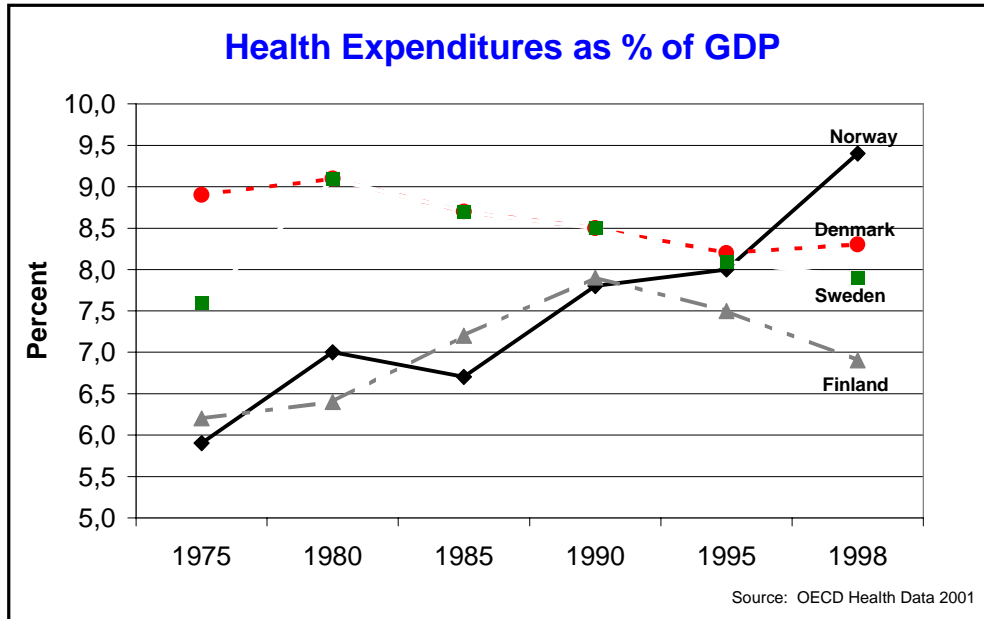
1. DALE: disability adjusted life expectancy

It is apparent from the table that Norway fared best of the four countries and it is equally clear that Denmark came in last in this comparison.

Blendon et al. have compared the WHO rankings with citizens’ satisfaction with their own health care system, [24,25] and found a negative correlation (Spearman’s rho) between the WHO system performance and the (1998) satisfaction in the 15 EU countries, Canada, and United States. The reasons for this divergence will not be explored here. It suffices to note that the criteria used in satisfaction poll of course are different from those in an expert and paternalistically driven comparison like the WHO exercise.

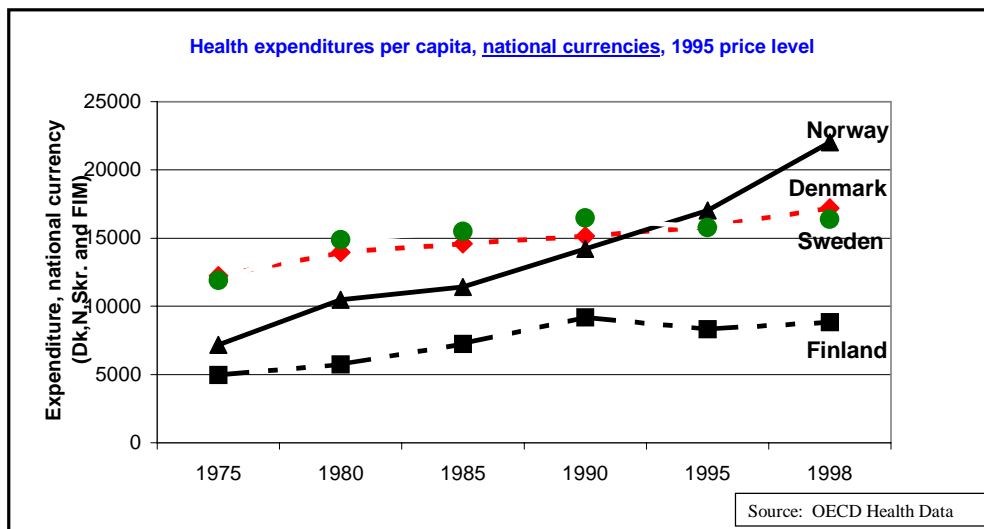
As the last piece of descriptive evidence consider the following two diagrams of the resource situation of the health care sector. Consider first the standard way of describing the resource situation, namely health expenditures as % of GDP. In many respects it is not a very good way of comparing countries. It creates more misunderstandings than clarity, e.g. is it ‘good’ to be below or above the average, definitional issues like the (partial) inclusion of nursing home and care for the elderly.

Figure 2: Development in health care expenditures in the Scandinavian countries



The second way at looking at expenditures is the per capita expenditures expressed in national currencies, fig. 3.

Fig 3: Per capita expenditures, national currencies



Norway is the exception among the Nordic countries. Over the past decade Norway has been in the fast lane judged by share of GDP and per capita expenditures. All of the countries have experienced growth in per capita expenditures – Norway the most.

Judged from the above it appears that the least likely candidate for reform is Norway – disregarding the possibility that the increased resources is due to uncontrollable factors, but rather that it has been an explicit political priority. However, problems with waiting lists persist despite many years' attempts to bring them down by means of various waiting list guarantees. There is no doubt that this is a powerful (political) driver for change in Norway along with Denmark – and apparently to a lesser degree Sweden⁸. In addition, the evidence presented above does not capture issues like central dissatisfaction, e.g. parliamentary and governmental, with the performance of the decentral level, let alone adherence to centrally issued guidelines. In decentralized systems these factors can be powerful drivers for change unless well working equilibrating mechanisms are in place

Changes and reforms in Scandinavia

There are two kinds of reforms: overall blue-print reforms, occasionally 'big-bang' – almost overnight (the UK, the Netherlands, New Zealand, Norway) and the incremental reforms consisting of small (continuous) improvements (Denmark, Germany, Finland, Sweden). The first kind is akin to revolutions whereas the latter is like evolution. Many of the evolutionary changes can hardly be called 'reforms' without twisting the meaning of the word. However, taken together over a period of time they in a sense make up a reform – even if there was no overall plan from the beginning. The idea of comprehensive, theoretically based and well analysed reforms is a far cry from reality in many instances and is neither necessary nor sufficient conditions for successful implementation, e.g. the Dekker reform in the Netherlands where much has been written, however, not much has happened. However, on the other hand it does not mean that reforms are just pulled out of the air, but in most instances they are a far cry from the scientific ideal.

Taken strictly a reform should be characterized by a more fundamental change. Four distinct change areas can be identified. Firstly, it can be a change of the administrative/organizational structure, e.g. redrawing administrative boundaries, setting up hospital trusts, primary care groups, or introduction of patient-list system for GPs. Secondly, another area is redesigning (economic) incentives, e.g. introduction of DRG, change of underlying insurance system, a change in the fiscal relationship between central and regional/county government, co-payment, or change in drug benefit scheme. In some cases such reforms are combined with structural changes, e.g. that redrawing of administrative boundaries may be accompanied by changes in block grant scheme from central government. Thirdly, changing 'rules of the game', e.g. delegation or centralization of responsibility or change of management responsibility and structure, and fourthly change of (frame or regulatory) legislation, e.g. patient rights and choice. These four dimensions appear both in isolation and together in various reforms. To this can be added the question of scope, extent, and time horizon for the reform.

⁸ The upcoming September parliamentary election in Sweden has put waiting lists on the agenda, however. It appears that no matter which party wins there will be national treatment guarantee for all diagnoses after the election. (Dagens Medicin, 2002, no. 13, p. 23)

In some cases health care reforms are embedded within even larger reforms. For instance, in 1970 Denmark experienced the largest health care reform of the century. However, it was an integral part of a larger decentralization/local government reform that reduced the number of municipalities and counties and redefining tasks carried out by the relevant levels in the state-county-municipality hierarchy and redesigning the fiscal relationship between central government, counties, and municipalities.

In the following changes in the health care systems of the Nordic countries is summarized briefly with focus on

1. patient choice – patient rights
2. establishment of market like mechanism, e.g. provider-purchaser split or contracting
3. strengthening of the management capabilities at hospital level
4. change in reimbursement method
5. co-payment
6. investment policy
7. role of state in financing decentral level
 - special focus on the fiscal relationship between state and the decentral level.

To be able to see possible longterm patterns the period under review will be 20-30 years, but with main focus on the past 10-15 years, see Appendix 1 for documentation.

Common features of the Scandinavian health care systems are a) universal access and coverage, b) tax financed, c) decentral structure, i.e. county and/or municipal level is responsible for the provision and most of the financing of health services – to a considerable extent relying on the principle of subsidiarity, and d) by implication of the previous points, largely are publicly integrated systems.

It is interesting to see that in terms of the above points there is a fairly common ‘reform’ pattern, albeit not necessarily at the same time, namely a consolidation of decentralization principles coupled with increased patient choice and use of activity based reimbursement. There is no doubt that there is considerable cross-fertilization of ideas among the Scandinavian countries. However, the Norwegian 2002 reform breaks this pattern as regards decentralization.

Patient choice – patient rights has been introduced in all countries during the nineties, either as explicit legislation or a de facto change. There is considerable patient choice, e.g. of hospital all over the country and hence the possibility of patient demand being dictated by quality of the provider and also potentially embryonic ‘competition’. Free choice of GP (primary care physician) subject to a minimum period of attachment to chosen GP is also a common feature. In Denmark it has always been the case, while the other countries have followed in the nineties.

Starting in the early nineties, concern about waiting lists led to various waiting time guarantees, [26], – often without much success (probably due to poorly understood waiting list dynamics and/or lacking local support to decisions by central government or between central government and The Federation of Counties). This probably has created considerable tension between the decentral (county level) and the central government /parliament level where many of these guarantees (without legal consequences) are issued

– often associated with increased funding to the decentral level. When the counties did (or do) not deliver on the promises, the question naturally arose (arises) whether they are suited to have responsibility for health care – seen most clearly in Norway and Sweden, but clearly emerging in Denmark. This is probably what we have witnessed in Norway - contributing to the state take over of the hospitals.

In many respects free choice run counter to many of the ideas of the Scandinavian welfare model – and definitely to the outside view of these ‘socialist’ systems. However, over the past decade it has become accepted as a separate value by most political parties – and in practice resulting in more ‘free choice’ than in for instance many US HMOs or UK internal market arrangements. The ‘contradiction’ is that the decentral units, e.g. counties, usually are thought of as integrated systems (financing and provision within a delimited geographical area serving the population of that area – the catchment area). With free choice – and hence giving users a possibility to vote with their feet⁹ – the stability of the hierarchical decentralised system is endangered in that the build up of production capacity may be endangered and greater budgetary uncertainty follow, including how to settle payment with providers outside the geographical unit, e.g. with neighbouring counties¹⁰.

It is also somewhat ironic that the waiting time guarantees and the free choice option undoubtedly have been issued to secure the welfare state, i.e. politicians basically saying ‘we make sure that you get the needed publicly produced health care services in exchange for your tax contribution’. However, the underlying vertically integrated model may be poorly suited for this. There is no doubt that one of the effects of free choice is a need for a higher degree of coordination among the counties, e.g. one county cannot offer new services without coordinating with other counties. If not, there will an ongoing ‘catch-up’ game. In Denmark where free choice of hospital has been a reality since 1993, differences in services offered by the various counties, has started to disappear, and the introduction of new treatments are now rather carefully coordinated by the counties. Decentralization basically is based on the idea of accepting diversity – also in terms of services offered – but in practice and unfettered it may run counter to national equity considerations and free choice (in a system without relevant equilibrating mechanisms than close coordination).

The distribution of fiscal responsibility in a decentralized system is important because it to a considerable extent influences the stability of the arrangement. In all the Scandinavian countries counties and municipalities have the right to levy taxes (income, property) to finance the services provided – ensuring that operational/planning responsibility goes hand in hand with overall fiscal

⁹ Obviously the ideas from fiscal federalism are part of the underlying thinking in the sections on decentralized systems. For a systematic introduction see, [88], for an up-to-date Scandinavian angle see [46]. By invoking the idea of voting with your feet the classic by Tiebout, [89], comes to mind. He showed that optimal local budget patterns will result from location choices of individuals, i.e. who voted with their feet based on the calculus of local benefits and tax-rates. There is, however, an important difference between choice in the Scandinavian health care systems and the Tiebout model, namely that one need not relocate to exercise choice involving treatment outside the local jurisdiction. Rather, one is able to enjoy the local benefits (and taxes) and at the same time take advantages of benefits in other jurisdictions without having to pay more – and without to change place of living. It is among other things for this reason that the stability implied by the Tiebout model and other models of fiscal federalism do not apply in the current model.

¹⁰ In Norway a recurrent theme has centered around ‘guest patients’ (gæstepatienter), e.g. patients crossing county border for treatment – either to a regional (more specialized) hospital or to a local hospital. Issues have centered around budgetary uncertainty and capacity build up or downscaling.

responsibility for funding the system. However, the state most often has to contribute for a variety of reasons. Gradually in the seventies and eighties it developed into an unconditional bloc grant system based on objective criteria, e.g. population, share in certain age groups, shrinking population base etc.. However, the balance between state bloc grants and locally raised tax financing is important for the stability of the system. In countries where a relatively high share of financing comes from central government, it weakens the efficiency incentive of the decentral units because the overlap between fiscal and operational responsibility (decision rights) is weak¹¹, whereas where the overlap is high, e.g. in Denmark about 85% of financing is raised locally compared to Norway where less than 30% is raised from local taxes, it creates incentives to pursue efficiency more vigorously¹².

The question of waiting time guarantees can be linked to question of fiscal responsibility. There are several examples of either earmarked or unconditional increases in state funding to the counties to reduce waiting time. e.g. Denmark, Norway, and Sweden, or in other areas like cancer, heart surgery or psychiatry. This creates an imbalance because expectations about results from the donor build up, and financial dependency by the receiver increase, and if positive changes in the targeted areas do not materialize, trust between the parties is eroded.

Establishing market like mechanism, e.g. provider-purchaser split

One has to distinguish between market and competition rhetoric and reality (and extent). In none of the Scandinavian countries there has been national blue-print plans for increasing market involvement, but in a rather imprecise sense ‘market like elements’¹³ have been introduced into a publicly run and financed system. The purchaser-provider experimentation in many Swedish counties has received

¹¹ Creating ‘easy ways out’ for the operationally responsible: ‘we need more money’. In a system with asymmetric information it is easy for the upper level to accept the expressed wish by the lower level. There is not a clear incentive (driver) for efficiency enhancing activities at the lower level, unless a hard budget constraint is clearly signalled. In publicly financed systems the ‘hardness’ of the budget constraint is closely linked with up-and downturns in the national economy.

¹² Over time the budget constraint experienced at the decentral level has changed cyclically. When Denmark ‘resurrected’ the national economy in the 80ies and early nineties, the counties were given very strict conditions by central government in terms of allowable tax increases and/or changes in government bloc grants. This hard budget constraint led to clear efficiency gains (productivity and/or structural changes in the hospital system). It was eased in the nineties. In Finland a very strong driver in the early nineties was the economic consequences of the collapse of the Soviet Union. The reforms in Sweden in the early nineties coincided with economic problems, e.g. the worst recession in 1991 in that century. Norway has not experienced this due to the oil-boom.

¹³ The following are typical examples of what loosely are called: consumer choice of provider, public contract models/purchaser-provider split, (regulated) competition among providers, use of DRG as reimbursement system for hospitals, and (regulated) competition among third-party purchasers. These examples largely coincide with the most commonly named examples of ‘market orientation’, e.g. [90]. - The aim of market orientation is to increase efficiency through the application of market-like mechanisms – hopefully without decreasing equity. However, the underlying efficiency properties of free markets are largely absent from these reform attempts, most notably the crucial driving force, namely price-competition, which is required to obtain most of the results of the perfectly competitive model along with choice exercised by consumer, free entry and exit, ‘many’ (at least several) producers etc.. Theoretically it is hard to prove that such contemplated reforms a priori should lead to increased efficiency, e.g. that quality or reputation competition (which is at best what free choice of provider can be expected to generate) should in and by itself lead to increased efficiency in the provision of care. It may, however, lead to a higher degree of responsiveness which is probably what is the aim of free choice with the added hope that it also can increase efficiency. – In fairness it should be noted that ‘competition’ and ‘market orientation’ often is used in a colloquial or more intuitive sense, also by professional economists. Most of the writings of Alain Enthoven basically is conducted at this level, e.g. [91,92,93,94] And expectations as to effects are by casual inspection of every day experience in other markets – not by the strict assumptions of the scientific articles.

widespread attention – probably not as much due to the novelty of the results as due to the fact that a traditional Scandinavian welfare system was trying to break new ways.

Starting in early nineties several Swedish counties started using provider-purchaser split, often combined with patient free choice and activity based reimbursement, e.g. DRG. Usually explicit competition is absent – possibly with the exception of Stockholm County. When evaluating the efficiency effects of the reforms it is very difficult to distinguish between the effects of the elements even though some attempts have been done, [27,28]. Overall it has been difficult to show significant efficiency increases, but on the other hand no decreases have been seen.

In Denmark the use of explicit – but not comprehensive and exhaustive – contracts between the county (‘purchaser’) and hospitals (‘providers’) was introduced in the nineties and is now widely used, [29]. These contracts are not legally binding¹⁴, but stipulate on the one hand production and quality targets, occasionally also research and teaching goals, along with areas which are to be developed, and on the other hand provide funds to obtain these goals. Usually there are provisos about what happens if targets are exceeded or not reached. However, the contracts are not developed in a competitive environment (or just in a situation with potential entry of competitors).

Despite the structural possibility for developing a purchaser-provider culture, there is not much in the Finnish situation to indicate a move in this direction. In Norway there has been some moves towards using contracts, but the introduction of DRG-based reimbursement (in 1997, now 50%) to a certain extent makes this superfluous from an incentive point of view.

Regarding management reforms we see a general move in the 90ies towards departmental budgets and today virtually all hospital departments have departmental budget, [30]. Similarly a professionalization of management at hospital and departmental level has taken place.

In all the Scandinavian countries the frame budget (capped global budget) as the preferred way of financing hospitals has been abandoned, often a more explicit contractual approach has been taken, or frame budgets have supplemented by activity based reimbursement (DRG). Norway led the way with experiments in the early nineties and systematic introduction in 1997, today with 55% being DRG based. In Sweden it has been an integral part of several of the provider-purchaser models. In Denmark DRG has been systematically introduced for free-choice-patients (e.g. patients choosing a hospital in another county), and in Finland use is also increasing.

The introduction of free choice of hospital has put pressure on the idea of capped global budgets. In part because free choice implies that some kind of activity based reimbursement is needed for this group of patients, in part because the free choice increases the financial risk (read: less predictability) of both budget holders – and ultimately the financial third party. Similarly, the introduction in Norway of the list system for GPs and free choice of GP led to the introduction of a (partial) fee-for-for service system – and that about 90% of all GPs now are independent entrepreneurs. Often reforms in one area leads to more or less logically connected reforms in other areas.

¹⁴ But are usually taken seriously. Note that in connection with the Norwegian reforms, contracts can be legally binding.

Co-payment as such has not changed radically over the past 10-15 years apart from the fact that co-payment as percentage of total health expenditures has increased - most in Finland in the wake of the severe economic recession, but also in Denmark – and in Sweden the counties, with a number of limitations, are free to change co-payment rates.

After this summary of some of the most pronounced reforms the reforms are now put into perspective in a simple conceptual scheme.

A simple conceptual model

A model or conceptual scheme can serve several purposes: 1. as a systematic classification and framework for description of reforms, 2. as a model helping to explaining why reforms are introduced, and 3. as a model predicting possible effects of a reform. There are few attempts to provide an overall scheme for thinking about reforms, e.g. [31,32,14].

Economists' traditional (mathematical/geometrical) models only serve prediction purposes and are situated in an institution free environment. However, relevant formal reform models in health economics are scarce, or if they exist, they rarely satisfactorily mirror the important features of modern health care systems or capture the essential features of reforms, e.g. how to capture the effect fund holding, trust status of hospitals, provider-purchaser split or competition in a quasi-market setting in one comparative-static model. Of course one can model part of this, for instance bargaining/contracting models for provider-purchaser issues, e.g. [33,34], or hospital models with emphasis on the effects of alternative reimbursement methods. However, when looking over economists' attempts to predict the effects of reforms they at best usually rely on ad hoc pieces of economic theory or just common sense appeal to economic notions about market and competition – a far cry from the cherished formal models. Models from economics rarely, if ever, are concerned with the first two purposes.

Much of the writing about reforms in reality is related to the first purpose, possibly with loose references to expected effects. The second purpose has not yet been developed. When writing about reforms there naturally are statements about why they are introduced – see the example in the introductory section – but this is not to be confused with the underlying explanation. Many forces are at play: from ideological ('more market' or 'more public sector' with appeal to a not carefully described Nirvana) to reaction to earlier reforms that did not provide the expected results, e.g. consider the development in England, New Zealand, and Sweden where reforms are rolled back or course is changed as a reaction to two forces: change in the political colour of the incumbent government and disappointment with effects of previous reforms. This possibly is a vicious circle where governments are chasing a mirage. Another driver for reform has been economic problems with the national economy, e.g. the resurrection of the Danish economy in the 80ies, the Swedish recession in the early nineties, and the Finnish economy after the collapse of the Soviet Union.

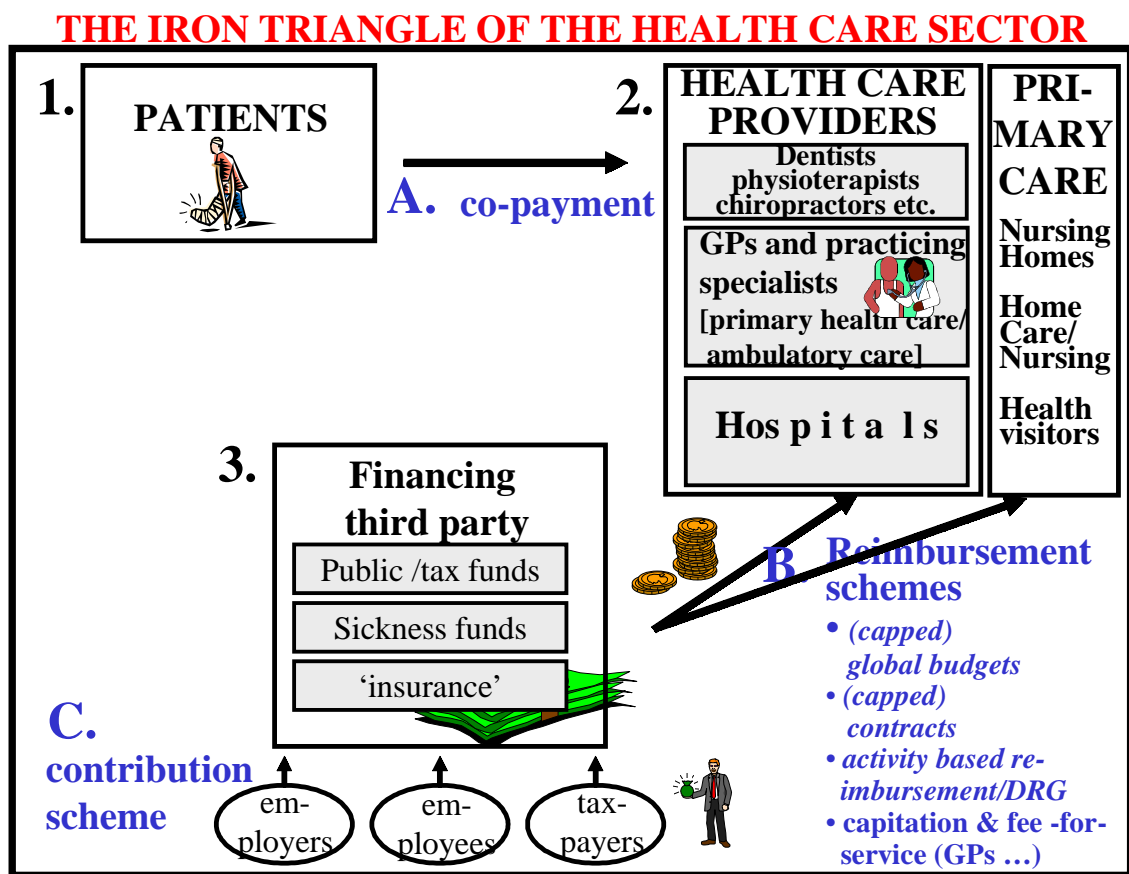
The conceptual scheme below is a simple framework that relate to all three purposes with models mentioned above. However, the best fit is probably with purpose one and three but within a

Scandinavian integrated health care context it also provides an element of possible explanations why reforms may be set in motion.

Without going into lengthy ‘derivations’ of or rationale for how the general organizational structure of almost all health care system is, the following common features can be noted, see figure 4:

- There are ‘third party financing systems’ – often with one or two dominant actors, e.g. tax funds or (compulsory) sickness funds. The existence and function of this party in reality is the key to understand the peculiarities of the economics of health care.
 - Meaning that users/*patients* directly carry only *a negligible part of the expenditures* for services – at most 20-25%.
 - that the reason for existence of a third party (in universal coverage systems) is the *redistribution of the economic burden of illness* (often couched in insurance terminology, but largely an irrelevant analogy in compulsory systems with risk equalisation – possibly with the exception of the US – and to consider a universal taxed based system as ‘insurance’ is a directly misleading analogy). The third party financing system is an expression of fiscal equity (‘contribution according to ability, ‘services according to need’ – often termed solidarity)

Figure 4: The general structure of all health care systems



- almost by definition the existence of a financing party indicates some kind of underlying *Political system*, either as elected politicians who have the legitimate authority to levy the necessary taxes or elected boards of sickness funds – which in turn usually require, as a minimum, political regulation due to coverage of various groups not covered by the sickness insurance schemes. In this sense ‘politics’ is an integrated feature of all health care systems – and in particular so in tax-funded systems. A number of priority setting and allocation decisions are made by the political system – as distinct from other political roles, e.g. the regulatory framework. From an economic point of view this means that much analysis of health care systems should be approached from a public choice perspective. Furthermore, a number of equity issues other than financial are also part of the tasks of the political system, e.g. equity between patient groups, equity in health, and geographical equity.
- the mere existence of the financing third party raises the issue of how to transfer the necessary monetary resources to the health care providers, i.e. the issue of *designing reimbursement systems*.
 - Implying a principal-agent relationship with the financing third party as the principal, and hence the issue of developing the right incentive system, developing (more or less) comprehensive contracts etc..
- Most health care providers, in particular the large institutional ones, e.g. hospitals and nursing homes, are non-profit – either run by charities and the like¹⁵ – or publicly owned and run
 - In many respects there are no obvious economic rationale for providers mainly being non-profit. However, imperfect contracting and the like may give incentives for vertical integration
 - Provider revenues to a very large extent come from the financing third party – based on either politically approved frame budgets, (politically) approved contracts or activity based financing, e.g. DRG tariff, subject to politically accepted open-ended funding or capped funding, i.e. that after a certain revenue level the tariff is reduce to stay within capped funding.

The above framework can be developed further to reflect particular health care systems, e.g. the Scandinavian models. The Scandinavian models are characterized by decentralization in the sense of hierarchy, [35], and integration in the sense that major dimensions are public, e.g. financing, ownership and operation of hospitals meaning that they are vertically integrated. Furthermore, due to the integrated nature and the explicit political dimension, in particular at the regional level, one can also within this framework address the question of politician roles (normative and positive)– roles that would be different in for instance a system like the German or Dutch, not to mention the US. Here we focus on Scandinavia.

¹⁵ Somewhat misleading these institutions often are called private – forgetting their non-profit nature – and hence in many respects with more similarities with public hospitals than commercial for-profit hospitals.

Usually reporting lines in such a system would be like the following: political head of the county health committee (consisting of politicians) takes report from the CEO of the county (regional) health

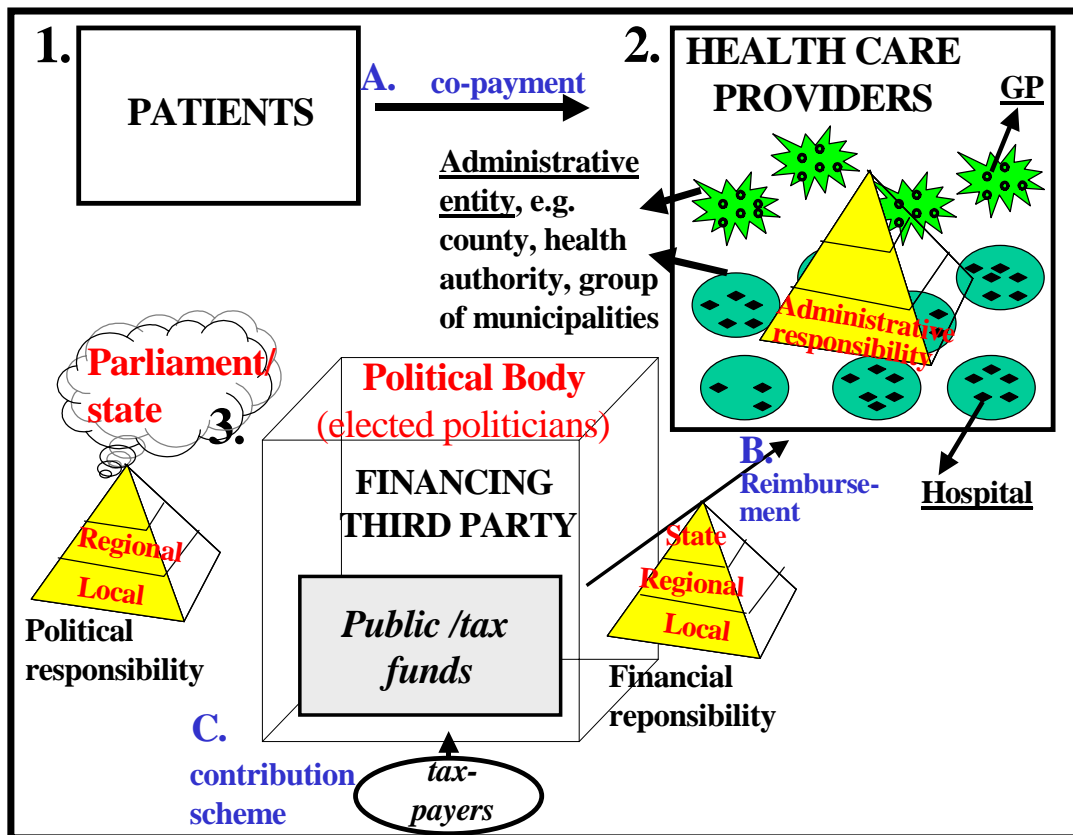


Figure 5: The general model adapted to decentralised health care systems of the Scandinavian type

administration, who in turn takes reports from hospital CEOs. However, at this level one cannot identify the underlying dilemmas, namely how close should/ought the political head or committee follow the development at the hospital level?

Basically regionally elected politicians balance between several conflicting roles: 1. that of representing the voters: ‘representing demand as the prudent purchaser’ in a non-price system (however, basically this is making mockery of politics. Politics is more than just representing citizens’ demand for services as one often see implied in some purchaser-provider models), 2. that of representing local interests (as distinct from group interests, e.g. securing that there is a local acute hospital or a local GP consultation), 3. that of setting frames/regulation, 4. that of representing/being the owner of the hospitals, 5. that of safeguarding on behalf of the electorate that values and objectives are followed, e.g. equity and choice (the role as ‘overseer’), and 6. the role of being ‘overall responsible’, securing good and impartial administration and operation in accordance with public administrative law¹⁶.

¹⁶ To illustrate and stress the point: In Denmark the county mayor according to local government law is responsible for all administrative matters – and obviously has delegated the responsibility, but nevertheless ultimately is responsible.

In many cases it is implied that politicians (unnecessarily) meddle in operational issues, e.g. being the messenger for some of the unions and getting involved in staffing issues, meaning that they may block efficiency increasing activities. There is no doubt that the recent Norwegian reform to a certain extent implicitly indicate that local politicians have been too closely involved in day-to-day operational and local hospital matters – and by implication that the reform described later attempts to put a considerable distance between the political body (parliament, minister of health)¹⁷.

From a theoretical point of view it is obvious that a public choice approach is important in trying to understand some of this, but more is needed than just a model of utility maximizing politicians. Such an approach does not address the normative question of the appropriate role of politicians in the above meanings. It is also clear, as indicated earlier, that this issue is more pertinent in health care systems like the Northern European ones than in other parts of Europe. In Bismarck-type systems the political involvement is more concerned with the regulatory role.

- theoretical approaches: principal-agent and discrete structural analysis

In terms of principal-agent thinking we have in general in decentralized systems at least two relationships¹⁸

- The state <- > regional (county) relationship
- The regional (county) <- > hospital ('operational level') relationship

Principal-agent relationships are characterized by information asymmetry and different preference functions. One of the challenges is to try to create greater alignment between the behaviour of the agent and the objectives of the principal by means of various incentive schemes (monetary and non-monetary) that will influence behaviour in the desired direction. The relationship is bilateral by nature, but within a hierarchical system there is linked bilateral relationships – and ideally the mapping of the link function should be perfect (one-to-one), i.e. a perfect principal-agent relationship in the sense that agent behaviour follows the preferences of the principal so that for instance state intentions without slack and ambiguity is transformed into action at the hospital level. In regard to the public sector one must remember that not all relationships need be voluntary in the sense of voluntary agreements or

¹⁷ It is interesting to read Enthoven's description of the NHS. It is quite clear that he sees politicians as preventing the pursuit of efficiency, that they selfishly are trying to maximize support to ensure re-election, i.e. that there is a contradiction between efficiency and re-election. This is obviously a superficial picture, but probably reflects what many think. Using a book about the US Congress as point of departure he notes 'They [politicians] engage in advertising or the building of name recognition, posturing (as in stating public positions known to be popular with constituents such as opposition to evil), credit claiming, and the delivery of particularised benefits to their constituencies. I heard enough examples of the latter during my travel around England to be persuaded that MPs are not exempt from the same motivations. MPs and ministers cheerfully use the NHS as a bundle of gifts to give voters: a new hospital here, stopping those dreadful bureaucrats from closing one there, winter money here and reduction in waiting lists there. All of this is well and good and democratic, but it isn't the same as a relentless and systematic effort to maximize health gain for money or systematically improve customer service, and indeed may be the opposite', [91], p. 9

¹⁸ Disregarding the logical third relationship, namely that between hospital top management and the departmental management levels. For the sake of completeness a fourth relationship is involved: between the political level and the administrative level (the ministry). Depending on the aim of the analysis, one can work with a complete four level principal-agent chain or just two as is done here.

contracts. For instance, the state/parliament has the ultimate authority to change the rules of the game by means of legislation (but does a board or executive director of private company).

In a public systems with political principals and administrative/operational agents one of the issues is akin to studying what political scientists have termed the ‘parliamentary steering chain’, i.e. to what extent (‘how perfectly’) are decrees and legislation at the top level effectively transmitted and transformed to action at the appropriate level. For instance, to what extent does hospital management follow nationally established guidelines about priorities for particular patients groups? How effectively are waiting list guarantees issued by the parliamentary level transformed into action at the operational level? These are examples of some of the issues behind the recent Norwegian reform where dissatisfaction has been expressed by the large degree of slack in the steering chain.

As long as one has a hierarchical decentralised political-financial-operational system, one is faced with the question of how most effectively to ensure alignment of behaviour across levels¹⁹. This involves two issues: given existing organizational structures, e.g. counties at the decontrol level as responsible for health care, how to design efficient incentives, e.g. block grants from central government combined with the right to levy taxes by the county²⁰. Or, given incentives structures how to design organizational structure, i.e. replacing counties by some other institutional structure, e.g. municipal co-operatives (‘hospital districts’) like in Finland or the Norwegian reform where five regions replaced the 19 counties. Obviously there is a third possibility, namely to redesign both organizational *and* incentive structure at the same time or as a two stage process²¹.

In terms of more general supply side reform strategies the principal-agent framework can be transformed into the question of the ‘arms-length’ corporate principle as exemplified by the provider-purchaser split and associated idea of internal or quasi market, [36] [37]. Essentially this line of thinking requires as the point of departure a vertically integrated system, i.e. integration of the financing third party and the provider institutions, like in Scandinavia or the UK²² which then is divided up in purchasing and provider entities. Following the above line of thinking such reforms

¹⁹ Very little has been written on the issue of decentralized health care systems in the sense introduced here. In the US it is not relevant, in the UK there is a unitary state, that is, one in which sub-central government, e.g. health authorities, is formally and administratively subordinate to the central government. However, once a decentral level, e.g. counties with elected politicians is introduced, things may change. The only work encountered in a search addressing the issue of for instance quasi-markets and institutional (hierarchical) context was that of France, [95], who used Italy as an example. His overall conclusion regarding the introduction of quasi-markets in a decentralized system like the Italian was to ‘suggest that a decentralised system is per se less favourable an environment for quasi-markets than a unitary state’.

²⁰ Basically the issue is also, and probably mainly, one of a multitask principal-agent relationship, either that the agent is expected to perform several tasks, or the task has several dimensions. A (very simplified) result from this literature is that each task should be made the responsibility of just one agent. Holmstrom and Milgrom noted in 1991 that they were the first to derive formally the principle of unity of responsibility which underlies the theory of hierarchy, [96]. However, their results were derived in an employer-employee setting and cannot be directly transferred to the issues treated here.

²¹ In Norway a government commission was established early 2002 to look at a redesign of the reimbursement system to align it with the institutional reform, hence creating a two stage reform process starting with the redesign of the institutional structure.

²² And many HMOs in the US – where, however, the idea of provider-purchaser split interestingly enough are not the prevalent line of thinking. The idea of vertical integration in the private sector basically means that the sub-supplier is integrated into the acquiring party’s organization and that it becomes the preferred supplier internally. (to witness: the long discussion in the literature about the Fisher Body – GM relationship).

should lead to greater correspondence between principal preferences and agent behaviour – and do it more efficiently.

The provider-purchaser split within health care has rarely been paralleled with the corporate principles. However, in view of the Norwegian situation it is worthwhile to recap the essential ideas. The ‘arms-length principle’ is an attempt to create a ‘business like’ atmosphere between the owner/principal and agents/subsidiaries (‘daughters’), i.e. trading between units of the corporation in principle is conducted on business principles, i.e. market (like) prices and/or with the possibility of choosing suppliers outside the corporation along with the use of legally binding (more or less comprehensive) ex ante contracts. However, the owner/corporate management always retain the right to redefine the rules of the game, e.g. deciding that an outside supplier should not be used.

The idea of a provider-purchaser split is based on, among other things: 1. a wish to clarify roles, i.e. political funding role cum purchaser and the provider role (while retaining, however, both the ownership and the ultimate political authority and legitimacy)²³, and 2. The idea that it will enhance provider efficiency. The latter, however, presupposes a number of things. Firstly, that some kind of competition is introduced (or at least threat of potential entry or exit). However, outside the metropolitan areas the idea of competition is more theoretical than real due to local monopoly and travel distance. Actually, most of the thinking should be carried out within spatial models. Secondly, the existing incentive structure, for instance capped global budgets, are inferior to the incentive schemes in the provider-purchaser model, e.g. contracts²⁴, activity based financed or mixture models. Thirdly, providers get more operational autonomy than under existing (more integrated) systems. Fourthly, that cream skimming and skimping is not allowed or effectively counteracted in an equity based system.

It should, however, be noted that it is difficult to find theoretical support for the underlying notion of efficiency enhancing properties of the provider-purchaser split – apart from a common sense reference to efficiency properties of markets and (some) competition – at the same time forgetting the various restrictions in the health care.

So far the theoretical thinking has mainly relied on the principal-agent paradigm. However, a complementary and potentially enriching approach is to use neo-institutional economics, NIE (also known as transaction cost economics), [35,17,38]. This is also necessary because ‘principal-agent theory tells us about optimal incentives schemes but not directly about organizational form’, [39]. In other words, principal-agent theory is developed within a given organizational form and hence cannot address reform ideas that involve changing organizational form.

Originally Williamson only distinguished between two organizational forms: markets and hierarchies (large, often vertically integrated firms). However, in response to criticism a hybrid form has been developed so that now there is a continuum: market – hybrid – hierarchy. For health care this is equivalent to think in terms of (rather) market oriented systems, e.g. the US, a hybrid system like what is seen in England, and vertically integrated systems like in the Scandinavian countries. Williamson’s

²³ Im- or explicitly saying that politicians meddle with operational issues at the provider (hospital) level

²⁴ Contracts were, however, introduced in Denmark in the mid 90ies to supplant capped global budgets without introducing the idea of provider-purchaser split, see [97], but, however, stressing clarity of roles.

thinking has been developed in a private sector context, but can, with suitable changes, be adapted to health care systems

The question of governance form can be approached from two angles. When considering a change, e.g. move from an integrated system to a hybrid form like provider-purchaser split, what are the advantages and disadvantages and vice versa. This is exactly what one is interested in when looking at reform proposals and is akin to the issue of trying to predict effects - or at least presupposes knowledge of underlying mechanisms in the two organizational forms. However, it can also be used to try to explain existing governance forms. And, stretching the use a bit: for classification of existing organizational forms thus encompassing the three ideals mentioned at the beginning of this main section.

One of the central ideas in NIE is that decisions about institutional governance form are based on minimization of transaction costs, i.e. market – hybrid - hierarchy are considered as alternatives. Some of the standard predictions are that transactions that involve uncertainty, that recur frequently and require substantial transaction-specific investment (asset specificity) are more likely to take place within hierarchically organized firms. Exchanges that are straightforward, non-repetitive, and require no transaction-specific investments are more likely to occur in market environments. It is often observed that firms in long-term exchange relationships frequently move from market contracting to integration and internal organization. Any loss of efficiency resulting from administrative complexity is preferred to the greater cost of markets, largely because hierarchies cope better with problems arising from bounded rationality and opportunism – two important behavioural characteristics of NIE. Of late the hybrid model has appeared, for instance alliances and public utilities overseen by regulatory agencies.

Markets, hybrids and hierarchies are distinguished by different coordinating and control mechanisms, and different abilities to adapt to adverse circumstances. The cost-effective choice of organizational form varies according to the characteristic transaction type. Often hierarchies are preferred where cooperative adaptations are needed, hybrid forms have advantages when one starts to use market-like incentives and flexibility. An example of hybrid form is the concept of quasi-markets, a framework often applied to the English reforms, [36,35,17,38].

The comparison of the three major organizational forms has been termed ‘the analysis of discrete structural alternatives’ by Williamson, [36,40]. He uses a passage from Simon, [36,41], to illustrate an important point:

“As economics expands beyond its central core of price theory, and its central concern with quantities of commodities and money, we observe in it ... [a] shift from a highly quantitative analysis, in which equilibration at the margin plays a central role, to a much more qualitative institutional analysis, in which discrete structural alternatives are compared ...

Such analyses can often be carried out without elaborate mathematical apparatus or marginal calculation. In general, much cruder and simpler arguments will suffice to demonstrate an inequality between two quantities than are required to show the conditions under which these quantities are equated at the margin”.

Marginal analysis is typically concerned with second-order refinement – adjustment on the margin - to the neglect of first-order economizing – getting the basic alignment right. Williamson claims that economics has been too preoccupied with issues of allocative efficiency, in which marginal analysis

was featured, to the neglect of organizational efficiency, in which discrete structural alternatives are brought under scrutiny. ‘Even more basic, however, is the propensity to focus exclusively on market mechanisms to the neglect of discrete structural alternatives ... market-favouring predispositions need to be disputed, lest the study of economic organization in all of its forms be needlessly and harmfully truncated’’, [36,40].

The issue becomes how hybrids fares with respect to adaptability (two types, A and B), incentive intensity, and administrative control – issues that seem pertinent to at least reform issues in Scandinavia. Adaption of type A is what is seen in markets. Given disturbances for which prices serve as sufficient statistics, individual buyers and suppliers reposition autonomously. Appropriating, as they do, individual streams of net receipts, each party has a strong incentive to reduce costs and adapt efficiently – resulting in the use of high powered incentives. However, matters become more complicated when bilateral dependency enters the picture. Bilateral dependency introduces an opportunity to realize gains through hierarchy. Compared to the market, the use of formal organization to orchestrate coordinated adaptation to unanticipated disturbances enjoys adaptive advantages as the conditions of bilateral dependency progressively build up. This type of adaptability is called type B. However, the cost is that internal organization degrades incentive intensity and it results in added bureaucratic costs.

Discrete structural analysis eschews hypothetical ideal, e.g. the perfectly competitive economy as the benchmark of everything. Instead it insists that the relevant comparisons are with feasible alternatives – all of which are flawed somehow. The decision criterion is that of remedialness according to which an outcome for which no superior alternative can be described and implemented with net gains is presumed to be efficient. By using transaction thinking it is possible to compare imperfect organizational structures - the essence of reform thinking. Theoretically this is a great step compared to the institution free world of the perfectly competitive Pareto optimal world of welfare economics.

Possible destabilizing features of decentralized health care systems

Identification of possible destabilizing features in a decentralized health care system is at the same time also identification of possible drivers for reforms. The first feature below is at one and the same time an elaboration of an important feature of all health care systems, but in particular of the Scandinavian variety, namely the efficiency-equity trade off. However, the addition of free choice of provider can easily turn into a destabilising feature when applied to the vertically integrated and decentralized systems. However, the trade-off of between efficiency and equity can also be a driver for reform, for instance when the political weight attached to either efficiency or equity change.

- the efficiency-equity-free provider choice triangle

Public health systems like the Scandinavian ones are all faced with the challenges posed by the triangle efficiency – equity – patient rights and choice²⁵.

²⁵ In the literature on quasi-markets it is proposed that reforms should be judged on the following criteria: efficiency, equity, responsiveness and choice, [36]. Here responsiveness has been omitted – or rather, it has been subsumed under the choice and patient rights category. Note that this line of thinking agrees with the NIE approach discussed above: the net consequences of pursuing the three/four criteria is calculated in terms of transaction costs – be they quantitative or qualitative.

Not only is it so that ideally all three objectives are thought possible to pursue simultaneously – ‘have your cake and eat it too’ – but at the same time the overarching objective of public health care systems – that of controlled growth of health expenditures – should also be upheld. In some intervals it is undoubtedly possible to pursue all objectives simultaneously. However, trade-offs will be the rule.

Consider some examples of trade-offs. Waiting lists have as one of their root causes insufficient funding (along with inefficiencies), and the introduction of guarantees for (elective) treatment by definition requires more funding – thus endangering either the controlled expenditure growth and/or changing priorities among patient groups, e.g. acute vs. elective patients, endangering one of the equity principles. At the same time free provider choice, apart from the possible evening out of capacity utilization across hospitals, in principle requires spare capacity to meet the free choice (otherwise the free choice is limited by the fact that there is nothing to choose among or is limited by simple rationing through waiting time). However, this endangers efficiency. Furthermore, if the free patient choice in the extreme should endanger the existence of certain hospitals then the principle of geographical equity may be one of the costs – alternatively politicians decide to make an exception and fund such hospitals in the name of equity – at the same time compromising efficiency in general and in particular one of the possible efficiency enhancing effects of free provider choice.

Many more examples can be given. The essential point to note is that often there is little recognition of the more or less subtle relationships among the three objectives, including the fact that for instance some of the inefficiencies that it is thought desirable to remove are created by the focus on other objectives! ‘Running around in circles’ may occasionally be an apt description of the situation. Understanding of the intricate relationships is a clear prerequisite for health care reformers – and most often they must heed the saying that to every complex problem there is a simple answer – but it is usually wrong.

Furthermore, note also that free choice of provider by its very nature requires a case-based or fee-for-service reimbursement system – at least if the choosing patient crosses a county border (in the Scandinavian case). In a decentralized system this may increase both the budgetary risk exposure of the home county and hence also be a destabilizing element in a decentralized system of the kind under investigation here.

It is within this overall framework that the idea of public competition as a reform strategy for Northern European Health systems has been proposed, [42].[43] It is based on 1. Public ownership and operation of the relevant provider institutions, 2. patient choice of site and physician, and 3. what is termed flexible budgeting tied to public market share. In that sense at least Norway, Denmark, Sweden, and Finland are potential candidates for that line of thinking in that the three main ideas are fulfilled.

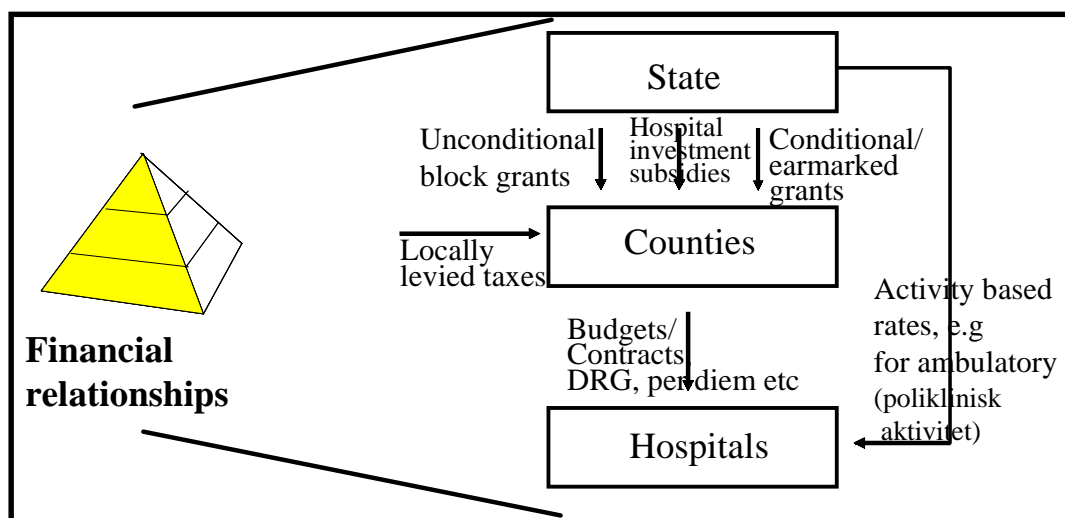
The driving force is thought to be patient choice because providers, faced with patient choice, will be forced to compete for patients – their public market share – in order to sustain revenue levels. However, it is ‘quality and reputation competition’ – not price competition. It is furthermore assumed that for instance hospitals are transformed into what is called public firms. In the public competition model a provider organization basically is thought to mirror the basic properties of a (private) firm rather than a public bureau. In developing these ideas Saltman and von Otter rely on some of the thinking of Williamson and his new institutional economics. The predicted effects from the model is

somewhat unclear, but by implication increased efficiency is expected while retaining important objectives like equity and a politically led system

- elaboration of the fiscal relationships

The fiscal relationships influences not only incentives but also reflect the possibility to steer and interfere ('he who pays the piper calls the tune'). If for instance the state for some reasons chooses to (partially) reimburse hospitals directly or use ear-marked grants – thus bypassing the counties (regional level) – it influences the possibilities for the counties to exercise their steering and control rights as owners and responsible for the running of hospitals along with the fact that incentives for hospital management may become muddled. The figure below is an example of a possible set of relationships – that to a certain extent mirrors Norway.

Figure 6: Elaboration of the fiscal relationships – mirroring Norway



If the conditional earmarked grants, e.g. for fulfilling waiting list guarantees, are not used according to the stated objectives by the counties it obviously creates dissatisfaction at the state/legislature level, i.e. an imperfect principal-agent relationship that requires redesign.

- stabilizing and destabilizing features of the three dimensions of decentralized systems

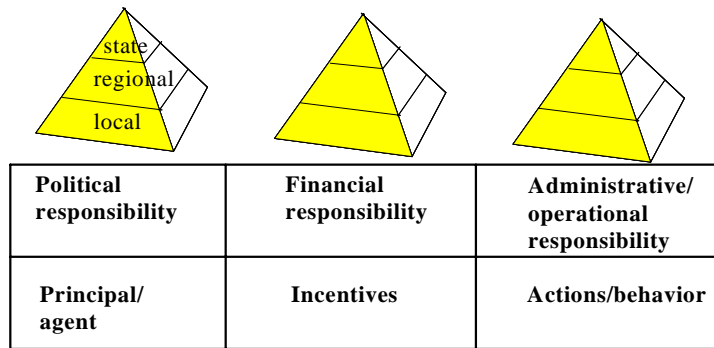
The previous example concerning financial incentives must be viewed in a broader context – a context that for integrated decentralized health care systems can provide a partial explanation of forces for change and reform.

Decentralization has at least three distinct dimensions: political ('devolution'), economic, and administrative/operational, figure 7. The balance and degree of overlap between those three dimensions are of importance for the stability of the chosen model for decentralisation. For instance, a model where the counties with elected political bodies have the administrative/operational responsibility, but not the responsibility for raising (most of) the necessary finances by for instance the right to levy taxes, but

instead is largely funded by the state/parliament, may have some in-built destabilizing features. In the figure the decentralization feature is indicated by the relevant pyramids.

Figure 7: The potential for stability/destabilization in a decentralized system

Alignment of levels across hierarchies



An example has been given earlier, namely that until 2002 in Norway the state directly financed about 70-80% of the hospital expenditures. However, the day-to-day and long-term strategic responsibility for the hospitals rested with the counties. This obviously may create tensions, whereas in Denmark and Sweden, there is a far higher degree of ‘level congruence’, i.e. the counties raise about 80-85% of the necessary funds themselves and have political and operational responsibility for the hospitals.

Similarly, but hardly with the same driving change force, one can consider the issue of level for primary health care, e.g. general practice and practising specialists. Assuming that close cooperation is needed between hospitals and GPs, there can be a problem if GPs are not at the same political, financial and administrative level as hospitals making coordination and incentive compatible behaviour more difficult.

In Norway, GPs are at the municipal level (to a considerable extent acting as independent entrepreneurs) and mainly financed by the state system (‘national health insurance’, ‘trygden’). In Denmark and Sweden they are at the same level. In Sweden with the added integrated feature that most GPs are salaried employees of the counties working in primary health care centres (‘vårdcentraler’). In addition, the funding of general practice rests with county.

Basically there should be ‘level’ alignment across levels of hierarchies to have a stable situation. If the main political responsibility for health care has been placed at the regional level (county level), it should also be the responsibility of that level to raise all or most of the funds needed for running/-funding the health care system etc. It does not have to hold unconditionally, but for important institutions like hospitals, it normally ought to be the case. Otherwise, the system most likely will be or become unstable creating an impetus for change. One interpretation of the reasons for the Norwegian reform takes this explanation as point of departure.

The three pyramids in figure 6 can also be looked at from a crude principal-agent perspective (and only that, but still a very useful metaphor and way of approaching the problem). The political dimension basically is the principal-agent relation, the fiscal relations act as the incentive structure used to align

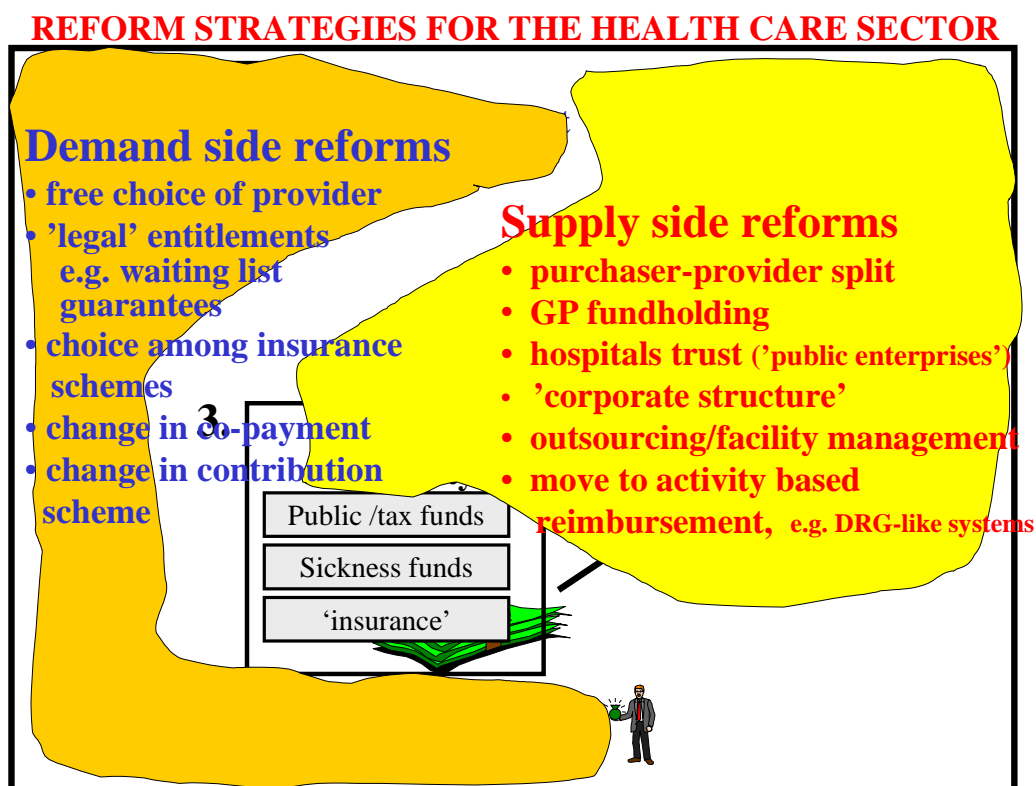
objectives of the principals with that of the operational agents, be that counties or hospitals/GPs/practicing specialists, and the administrative/operational pyramid is ‘behaviour’ in the sense that it is here that intentions are transformed to actions mirroring whatever ‘muddled’ relationships in the other two pyramids. It is fairly simple to note that if the incentive structure is not suited to the relevant political dimension (decisions, operational responsibility) one would expect a very imperfect P-A-relationship leading at some point in time to a change of this relationship.

The relevant theoretical apparatus for analyzing the issues raised above is to be found the literature about fiscal federalism, [44,45,46]. However, these issues will not be pursued further here.

Reform strategies

Finally, to place the Norwegian reform in context and to provide a simple classification of reforms figure 8 shows the various European reform strategies employed during the 90ies. According to Saltman, [11,5], supply side strategies have been moderately successful (without, however, specifying the exact criteria for success) while demand side strategies have been less successful. However, the introduction of free choice in Scandinavia are not mentioned or discussed. Political expectations were overly optimistic as was the rhetoric, but it is an important modification to the Scandinavian model.

Figure 8: A simple typology of reforms



Most reforms have not been evaluated thoroughly, but some have attempted, e.g. the English reforms, [3,2,47,48,49,4], and the underlying theoretical rationale is clearly inadequate, [50].

In the Scandinavian countries reforms have mainly taken place on the supply side: provider-purchaser split, activity based reforms and of late with the Norwegian reform hospital trusts and corporate structure, but the demand side is also present through free choice of provider and various waiting time guarantees. See earlier section with summary of the Scandinavian reforms.

The Norwegian Reform

January 1 2002 responsibility for and ownership of hospitals were removed from the 19 counties. Instead the state took over ownership and thus definitively settled a discussion that goes back to at least the mid 80ies. The organization is made up of 5 regions (regionale helseforetak), each with its own professional board ('styre').

Geographically the regions correspond to the same regions that were formed for regional planning purposes in 1975.

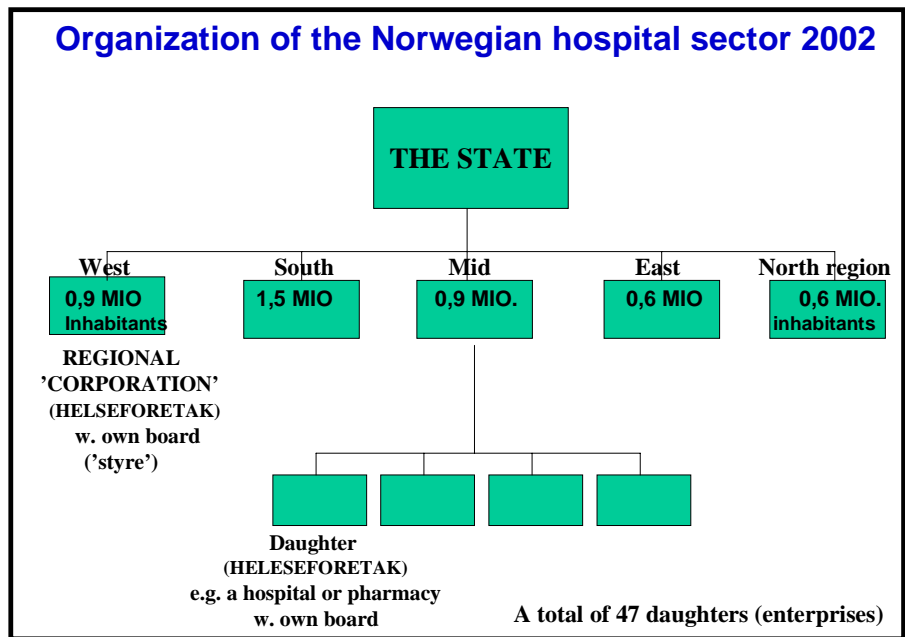


Figure 9: The reorganized Norwegian hospital system

The essential idea is to create what is akin to a private corporate structure: a corporation with its own board and hospitals ('helseforetak' – not quite public corporations and not quite like private corporations. For instance, they are not allowed to go bankrupt, there are limitations on borrowing in the capital market, and all revenues come from public sources) as daughters, also with their own boards. In a legal sense these organizational units are independent of the state²⁶, but where the state²⁷ can exercise its authority via

- a) the statutes (vedtekter)

²⁶ Organized very much like so-called state corporations (statsaktieselskab) but with an important difference compared to state corporations, namely that daughters (hospitals) also can be independent legal organizational units..

²⁷ The term state will often be used interchangeably with government. Obviously one should distinguish between the (nation) state as an administrative or a political entity – the political superstructure being: government and parliament. However, for most purposes 'state' is an understandable short hand term.

b) the appointed chairman of the regional board (who is assumed formally to have reference to the minister of health), and

c) General meeting/board meetings ('foretaksmøtet' that is almost like a general meeting in a private corporation). General meetings (foretaksmøte) can be called by the owner with one week notice if needed. At the general meeting the owner can instruct the chairman on specific issues. Only the owner has voting rights.

It is also assumed that corporate headquarters only exercise its authority over daughters via the statutes, appointment of board members and board meetings – but do not carry out micro management in relation to the operational and tactical issues of the daughter (hospital).

The regional board should have at least five appointed members with half coming from the region. Except for employer representatives, members are appointed by the general meeting, i.e. the state. The law states no special qualifications to become a board member, e.g. experience in running (operationally, tactically or strategically) a large (knowledge intensive) institution/company. However, it is not expected to be a board composed of politicians. The board in principle have the same legal status a board in a private company, i.e. for instance those individual board members can be held legally responsible for how they carry out their tasks.

The regional boards are responsible for procuring health services for the population in the region²⁸ – not only via their own hospitals but also from private specialists, private

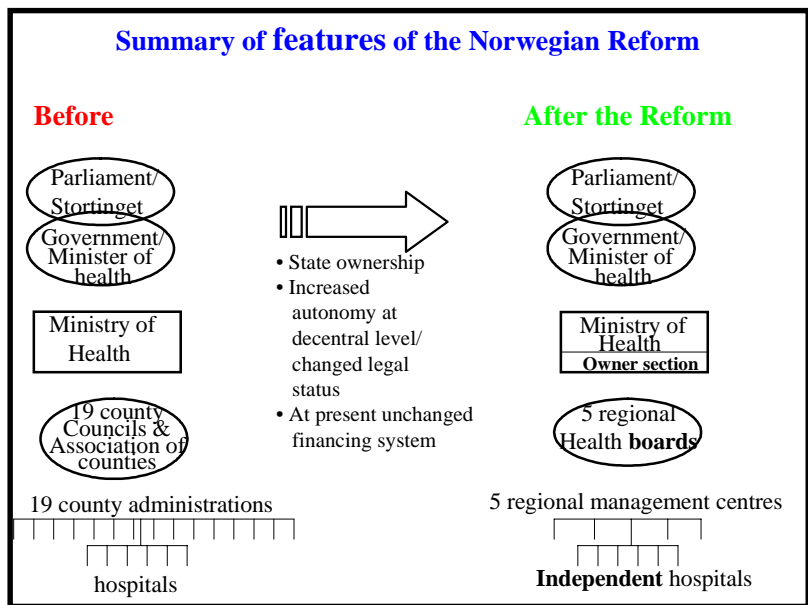


Figure 10: Comparison of the county and state model

laboratories, private hospitals etc. In other words, to act as purchasers of health services for the population in the region there appears to be a build-in conflict of roles, namely between being responsible for the operation of their own daughters and opting for private providers (if available). The current Norwegian government has stressed the purchaser-provider split in the political programmatic agreement for the three-party government (the so-called 'Sem-erklæring')²⁹.

It is expected that this structure will create a clear distinction between

²⁸ The so-called 'care for obligation' (sørge for forpligtelse)

²⁹ 'The government will look into a stronger organizational and practical split between the tasks of purchaser and provider of hospital services' (Samarbeidsregjeringen vil utrede et sterkere organisatorisk og praktisk skille mellom oppgavene som bestiller og utfører av sykehustjenester.), chapter 11 in [98]

- The role of the ministry of health as owner, exercised at general meetings (as distinct from exercising legal control and regulatory authority - 'myndighedsudøvelse')
- The role of regional board/management as 'headquarters' and purchaser of services
- The role of the hospital as provider and producer of services.
 - The hospitals have full (legal) responsibility (autonomy) for running the hospital, including investments (with the exception that it cannot go bankrupt and that bank loans can only be up till about 5 millions Nkr.). Accounting will be (almost) like in private organizations, i.e. also depreciation of capital and interest³⁰, and reporting and follow-up is intended to mirror what is found in private companies. Hospitals formulate their own HR and compensation policies. Taken together it is thought that this will create better economic management and ensure that corrective actions are taken locally prompted by local needs and responsibility/accountability?
- The political dimension is basically addressed at the parliamentary level when appropriations for coming fiscal year are negotiated, including setting macro priorities, along with establishing regulatory and frame legislation. 'Politics' is thought to be limited to this.

The reform has been introduced as a responsibility reform in the sense that it unifies political, financial, and administrative responsibility for the hospital sector as seen from the previous points. At the same time it also signals a management reform in that it also signals that there will be more focus on professional management led by boards composed of persons with relevant background, e.g. knowledge of health and treatment, logistics, finance, and HR.

It is possible to use legally binding contracts between the state and the region, and between the region and the hospital mirroring the legal environment of private companies. It is furthermore expected that decision making in this environment can be quick – not hampered by bureaucratic requirements.

Weaknesses the reform is expected to correct or contribute significantly to

In the introduction some examples were given. The following is a brief summary of the officially expected results, e.g. [18,51,52].

The general assumption is that Norwegian hospitals have organizational and management control problems that, among other things, have led to stagnating or decreasing productivity, growing or stagnating waiting time etc. In addition, geographical equity is not good enough – paradoxically one of the results of decentralization. There is an unclear division of responsibility. This is due to the fact that the state in reality has overall responsibility for the financing of health care, and furthermore to a considerable extent finances hospital construction while the counties have operational and planning responsibility – and nominally also the financial responsibility.

The reform is expected to

³⁰ Accounting will follow the law about accounting for private companies (regnskabsloven).

- Create clear responsibility for health care ('command and reporting lines'), namely in one body: the state (and the associated organizational set-up as described above).
- Removal of direct political interference in the running of hospitals. This is true almost by definition. The legal status of the regional health boards and the hospitals mean that they no longer are an integrated part of the public sector, e.g. not legally subject to most of the legislation surrounding public institutions. For instance, hospital employees are not state employees, hospitals will most likely join the private employers' association³¹ etc.
- The variation in clinical procedures and services offered is expected to decrease as is variation in waiting time. This is expected to happen via instruction ('decree') and faster diffusion of knowledge within a unified owner structure. However increased competition for patients due to patients' free choice of hospital and the new legal status of hospitals is also expected to contribute to this.
- Better utilization of invested capital by means of changed accounting rules and hence focuses on capital.
- Better common purchasing pools (for the hospitals) – via the regions
- Better coordination of physical expansion and renewal of hospitals – via the regions
- Better coordination of emergency and catastrophic care – because the partly was a state obligation prior to the reform
- Better development of research and education.
- National IT solutions.

It is interesting to note what is not mentioned explicitly, namely increased efficiency. This is probably due to the fact that it is thought that a number of the above points together will enhance efficiency. Also, structural reforms (hospital mergers, closures and better division of specialties) are not mentioned. However, in section 3.6 in a document on how the state intends to exercise ownership, [51], it is mentioned that it should be done with an eye to the need for increased operational effectiveness in hospitals and the need to carry out the necessary structural changes. Furthermore, in many passing comments spread over numerous documents one will find support for the expectation that increased efficiency should result from the reform, and it is also explicitly mentioned in the government's short-term objectives.

Short-term objectives are, [53,54]:

- Reduction of waiting time
 - New system for the system for sending waiting list patients abroad

³¹ This possibility was mentioned in early papers. However, hospitals have subsequently joined NAVO – an employer's association for 'free-standing' state institutions or institutions that formerly had an attachment to the public sector. The hospital sector will be dominating sector in NAVO.

- Put real content into the free choice of hospital
- Increased efficiency ('bedre bruk av ressurserne')
- Private providers – as a supplement to the public hospitals
- High priority given to cancer and psychiatry plans

In a nutshell the first four points capture the intentions of most reform attempts in the Scandinavian countries – and also to a considerable extent in for instance England and the Netherlands.

It is obvious that with so many expectations there are many short and long-term objectives that will not be met – inevitably creating political frustration. There is no doubt that from an implementation point of view the best strategy is to temper expectations. It is better to experience positive surprises than realize that expectations have been overly optimistic. Ideally one should go through the list one by one and make a (theoretical/empirical) assessment of a) why one should expect that things will be better under the new arrangement, and b) to what extent one should expect that ambition to be fully, partially or not fulfilled (better than the old organizational set-up).

In the next section there is a brief look at the theoretical rationale behind the reform followed by a more general assessment of the theoretical and empirical potential of changes in Norway.

Theory and thinking behind the reform

It is difficult to identify a very stringent, scientifically based, rationale for the reform. This does not mean, however, that it is impossible to identify a number of themes that is a mixture of problems and ways and means to remedy them.

It is in this grey zone that one has to try to extract possible theory based rationales. The danger of such an undertaking is that researchers rationalize possible explanations to fit a reform into their preconceived theoretical models. There are numerous examples of this³². In order to avoid the most obvious traps the path followed below is to look at official documents in a chronological fashion. If one did not do this, it would be easy to make for instance the mistake to interpret the focus on purchaser-provider split as yet an example of market orientation and not just to consider it a possible adaption to a changing environment and new challenges. Several commentators have (critically) pointed to what they consider to be market orientated features of the Norwegian reform, e.g. [55,56]. In many respects this is misguided, more reflecting ideological stance than the facts and intentions of the reform³³. However, it is fair to question both theoretically and empirically whether the reform can be expected to achieve the stated objectives.

³² In political science 'new public management' is used as an explanation of and rationale for almost anything that just vaguely resembles 'market thinking' and 'market orientation'. For an example showing how the free choice of provider has been (mis)interpreted in this way see [99]. And economists have been quick (and superficial) to note that market/competition etc. are important ingredients of the solution to most the ills that beset health care systems all over the world.

³³ However, it is fairly easy to find examples where changes officially are interpreted as creating competition and market orientation, e.g. 'Through activity based financing and free choice of hospitals ... there has been established a market and competition-like system', section 4.1 in the 1999 White Paper, [59]

In contrast to the other Scandinavian countries the Norwegian debate has very much concentrated on the question of ownership of hospitals: should it be the counties or the state? It is a debate that goes back at least to the mid 80ies, [57], was rekindled in the mid nineties, [58], investigated further in the late nineties, [59], and put to rest with the reform of January 2002. The focus on ownership naturally led to the question of which organizational form is best for hospital efficiency: traditional public sector organization or a more autonomous form akin to a private company? It is probably the latter that has led critics to see a move towards market. However, most of the White Papers have been devoid of market rhetoric or market like models, for instance ideas about quasi-markets. The term purchasers-provider has been used, but a careful reading reveals that it primarily refer to a clearer definition of roles, not to market thinking in terms of competition.

Apart from focusing on ownership of hospitals the Norwegian debate over the past 15-20 years shows an ambivalent attitude towards a decentralised health care system, e.g. the balance between central control and direction setting, and the (relative) autonomy for the decentral level to develop services according to local needs and priorities (with ensuing regional differences). In the seventies and early eighties the Norwegian development paralleled that of Denmark, Sweden, and Finland, however, with a time lag. For instance, a local government reform was first introduced in 1976 – for the first time establishing directly elected county councils and the right to levy taxes for (partial) financing of services, and the state retrospective per diem based financing of hospitals continued until 1980. Early on, however, doubts about the efficacy of the decentralized approach were expressed. Thus, the mandate for the 1987 government white paper, [57] p. 9, clearly states that

‘there is much to indicate that full utilization of the efficiency potential points to more fundamental changes in today’s steering and financial arrangement. One problem is the division of responsibility between three levels of government [state, county, and municipality]’.

This is a theme that continues to appear in the next 15 years.

Another issue emerges clearly in the 1996 white paper, [58], namely what to do about university hospitals (in Norway the so-called regional hospitals, ‘regionssykehuse’, run by the counties) – or rather: should the state be involved in the running of very specialized hospitals?

In Denmark, Norway, and Sweden the state for a variety of reasons continued to have responsibility for the ‘national hospital’ (Rikshospitalet) after the first decentralization wave. However, in both Sweden and Denmark, the state definitively decentralized in the late eighties and early nineties thus establishing an arms length principle to the operational and tactical aspects of the county responsibility for the hospital system – and accepting full decentralization and a reasonable clear division of roles and responsibility. Something that really never has been achieved in Norway, hence harbouring a latent destabilizing feature. Actually, the 1987 Norwegian government white paper clearly recommended that state run hospitals should become county responsibility³⁴ – a recommendation that was neglected, contributing to the 1996 white paper – (and later heavy parliamentary involvement – not to say ‘meddling’ - in the building of the new national hospital in Oslo (and the cost-overrun scandal surrounding this)).

³⁴ And the majority of the committee also recommended that the counties should be responsible for hospital care.

The mandate of the 1996 government committee, [58], originally was to consider two options: should the state take over investment obligations in regional hospitals (university hospitals) or should the state take over the whole responsibility for the regional hospitals. The issue was basically whether the state should get more involved, not less as in the other Scandinavian countries. The mandate was later expanded to consider the question of ownership and financing of all hospitals because the issue of regional hospitals could not meaningfully be separated from the other county hospitals.

The committee recommended that the state should not get involved with regional hospitals. All hospitals, including the national hospital in Oslo, should belong to the same administrative level (not necessarily the county level. From the alignment perspective presented earlier this makes very much sense). The committee did not see a solution in a regional structure with five regions, but noted that the voluntary cooperation between the counties had not been effective and needed to be strengthened. However, the committee was divided into three groups on the future organization: 1. basically as it was at the time, 2. more formalized cooperation between the counties, and 3. a regionalized hospitals system with the state as owner. In many respects the latter model is the one that was implemented January 1, 2002.

Without providing clear conclusions regarding the net advantages of the three possible organizational models, the report to a certain extent relied on the thinking behind principal-agent models and the use of contracts to align the objectives of the principal and the behaviour of the agent in an environment characterized by information asymmetry. This is the closest one comes to a theoretical paradigm, along with a passing remark about yard-stick competition, and the committee in reality only used it to recommend that a new specialist committee should look into the possibility to develop contractual relationships.

No less than 11 evaluative criteria were used when looking at the three models – and these criteria only to a limited extent can be coupled with the principal-agent paradigm – at best questions like cost-effectiveness, expenditure control whereas criteria like (political) legitimacy, institutional stability, and ability to innovate and change at best are peripheral to the principal-agent thinking. This example illustrates a more general issue, namely that a full evaluation of a proposed new organizational change rarely can rely only on one theoretical framework.

There is no doubt that the stability of a decentral structure where cooperation and coordination is needed among units at the same administrative level, e.g. among the counties, requires that voluntary agreements solve problems effectively, for instance the problems associated with patients crossing county borders, and patients referred to the more specialized regional hospitals. If not, they invite interference from the higher administrative and political level hence threatening the short and long run stability through ad hoc intervention to alleviate the shortcomings of the voluntary solution solving mechanisms³⁵.

³⁵ In Denmark one has seen a continual strengthening of such mechanisms, not only through frequent meetings within the Federation of County Councils but also regionally, e.g. that political and administrative representatives from 'east' and 'west' Danish counties meet regularly to sort out various problems. It also creates the possibility to develop both counter proposals to ideas from central government and develop negotiation strategies. Together this signals 'we are responsible' – but also can signal 'stay out' to central government – the latter being less desirable in a consensus oriented system. On top of this the Danish National Board of Health has been active in trying to create a planning environment regarding the

As a result of the committee's work a new law was passed establishing more formalized regional planning, including regional planning councils composed of elected politician members from the involved counties, [60]. Overall the effect was a stronger state steering of the regional hospital and specialty structure, including formal approval procedures for regional hospital plans.

The background for the 1999 White Paper, [59], was that important changes had taken place within the past few years: the introduction of activity based financing in 1997 (DRG), the introduction of free hospital choice, and the new requirements for regional hospital planning. Furthermore, the department of health also noted that private providers had gained some momentum (albeit, like in Denmark, very small hospitals compared to public hospitals, less than 1% of total number of hospital beds). The question was whether hospitals with current organizational attachment could adapt and respond flexibly enough to these new challenges and 'business' environment, including more competition and economic risk associated with increasing DRG-financing. Again the issue of ownership of hospitals and hospital models became the centre of attention.

There is no clear theory based line of thinking in the report, apart from a brief passage about contracts and purchaser-provider split (section 4.4), and a clear message that more operational freedom and leeway is needed – something that basically only can be achieved by relaxing the ties to formal public sector organization. There is a somewhat implicit picture that an organizational form not marred by the restrictions of public sector law and thinking is to be preferred (along with continued financing out of public funds). The question then becomes whether change of organizational form and degree of attachment to the public sector is a useable means to cope with the new challenges. The answer is affirmative, however, without many supporting arguments: 'choice and design organizational attachment thus appear to be a rather crude, but workable means', [59]

The report is pragmatic and simply investigates various hospital models (i.e. attachment like now, more enterprise oriented, state corporation etc.) combined with results from a survey of hospital managers and county officials about what they consider to be barriers for operating hospitals more efficiently. The criteria for evaluation of the various models are never made clear and much attention is paid to legal issues (to a certain extent mirroring the committee's mandate).

The committee concludes that the challenges described indicate a need for reform of form of attachment of public hospitals vis-à-vis the public sector at large. It is noted that the present organizational attachment is a possibility, but in case it is maintained, hospital management must be given far more autonomy. A majority of the committee agrees that either county enterprises ('kommunalt selskap') or state enterprises ('statsforetak') are suitable and useable. On the one hand hospitals are still publicly owned and financed, but on the other hand they are given considerable operational

location of highly specialised hospital functions. However, it is only indicative planning, but the counties listen to the signals and most often follow the guidelines laid down. Apparently the Norwegian National Board of Health has not had this function, opening a window for more direct state involvement. – There is no doubt that the nature of the regulatory environment makes a difference in a decentralised system. There is a difference between having a regulatory agency that can also consider planning etc. compared to an agency with a narrower mandate.

freedom³⁶. At no point are the net-benefits of this organizational mode discussed. The committee focused entirely on hospitals, not administrative/political level (county vs. state).

In accordance with the recommendations in the White Paper counties were subsequently given the possibility, voluntarily, to 'free' hospitals in the sense of giving them greater autonomy and loosen their ties to the public sector, [61], basically an 'enterprise' form that is similar to what was created at the state level from January 1, 2002.

In summary then, it is difficult, almost impossible, to identify a clear theoretical argument or just broad rationale leading towards the reform. Rather, real and perceived problems have over the past 15-20 years led to a search for 'something better' – oscillating between county vs. state ownership and (in the last 10 years) combined with ideas about more autonomous hospital management models. The reform process has in no way been theory driven – or for that matter ideology driven³⁷, but have been developed in response to new problems and challenges. The solutions, however, undoubtedly have been influenced by the thinking of the time – and the thinking of the nineties has been in terms of hybrid models somewhere between real market and traditional public sector.

The above account is based on the usual ivory tower researcher premise that not only should reform proposals be based on a reasonably coherent theoretical and empirical. Furthermore, they should provide better solutions than the existing structure do, and they should be developed in response to pressing problems based on a root-cause analysis. Regarding the two first points it is seen that this is doubtful. Regarding the latter some of the real drivers for change probably do not appear in government white papers.

Why then, is it fair to ask, did Norwegians within 2 years of the last white paper witness a rather radical reform? No comprehensive answer will be attempted here, but some ideas have been presented in the theory section of the paper.

In the Norwegian context one must not forget a) that more and more hospital issues end up in the parliament (financing, solution proposals), partly because the decentral responsibility for a number of reasons of which some have been discussed earlier, had been eroded, and b) political competition with health as an increasingly important parameter. Regarding the latter one needs only recall how the leader of the Progressive Party (right wing populist party) was able to create a parliamentary situation late 2000 where dissatisfaction with waiting lists led to a majority bypassing the social democratic minority government to accept an appropriation of 1 billion Nkr. for sending Norwegian waiting list patients abroad, [62]. Clearly, a responsive government will try to develop a response to visible

³⁶ It might be tempting to draw a parallel to the English hospital trusts. However, it would be somewhat misleading in that the Norwegian models have far more autonomy than the hospital trusts. As a matter of fact there are surprisingly few references or discussions of the English hospital trust model. However, on May 22nd the secretary of health announced an alternative to trust, namely 'NHS Foundation Hospital', [100]. Foundation hospitals will be free-standing legal entities with powers to borrow, make their own investments, retain the proceeds from land sales and vary staff pay. The idea of turning them into public-interest companies is being explored – a new style of not-for-profit company able to make a surplus but with their assets remaining in public ownership and protected from takeover. – From this perspective it seems that England is following Norway – not the other way around.

³⁷ The white papers have been delivered both to both social democratic and centre-right governments.

problem like waiting lists. To a certain extent this was one of the forces behind the reform – that had very broad backing in parliament - based on the hope that something effective can be done about waiting lists³⁸ and as seen from the list of objectives above it is now the prime objective.

What can be expected from the reform?

With an very incomplete underlying theoretical rationale it can come as no surprise that in general it is difficult to predict theoretically the effects of the reform – in part because the theoretical rationale has not been (very well) developed, e.g. see the White Papers, [59,58], or the first academic assessments, [63,64,65]. Many statements in the following will characterised by *ceteris paribus* thinking and characterised by hindsight.

In the White Paper, [51], establishing the foundation for much of the reform, it was noted (chapter 4):

‘it is not certain that the weaknesses of Norwegian hospitals have their roots in today’s organizational form or ownership and the way they operate. A number of other circumstances influence the situation – among these are lack of economic resources and that an expectation pressure is created politically because it is not made clear which services can be expected to be provided by the public health care system. ... In other words, there must be a realistic recognition of to what extent choice of ownership and exercise of ownership are the causes of the problem and which problems reforms in this area can solve.’

- summary appraisal

The overall conclusion about the expected effects is that it is at best uncertain whether or not the new structure will bring about most of the effects that the county based system was unable to deliver, apart from the unity of responsibility which is a result of the reform that follows per definition and may be claimed to be a prerequisite for improvement in other areas. Theoretically and empirically there is no clear indication that an improvement should be expected, however. It is seen from the analysis below and follows among others Kaarbøe and Kjerstad, [65], who note that state ownership in and by itself is neither necessary nor sufficient conditions for increased efficiency (thus focusing only on one of the dimensions expected to improve, albeit a summary measure for several other dimensions).

At present there is no doubt that the overall effects of the reform strongly, almost crucially, will depend on the financing mechanisms (state to regional corporation and regional corporation to hospital) currently being deliberated by an expert committee, [66]. Several issues are pertinent: how to transfer resources (= the annual appropriation from Stortinget (parliament)) to the regional boards, e.g. per capita budgets (somehow adjusted for among other things age-and sex composition), possibly combined with a legally binding contract setting up explicit objectives³⁹, or DRG-based. This choice undoubtedly will depend on a combination of efficiency, (geographical) equity, and the possibility of capping

³⁸ A simple root-cause analysis would show that this hope is destined to be disappointed.

³⁹ For 2002 the Department of Health has sent a so-called Steering Document (Styringsdokument) to the regional boards, e.g. [101], where the department uses its legislatively based authority to establish conditions (targets and obligations) for the appropriation to the regional corporations outside the general meeting. In a sense it is a ‘contract’ – here basically established unilaterally – but one must expect that future Steering Documents will be negotiated documents and gradually take the form of contracts. In the present document it is stressed that given the established targets and obligations, the regional boards have considerable autonomy in deciding how to meet the targets and conditions.

expenditures. Next, how will the regional board fund hospital, e.g. contracts based on mixture of global budget and DRG, possibly combined with yardstick competition (in essence just comparison of hospitals on a number of economically meaningful parameters).

In the following two sections expected effects will be viewed from a principal-agent and discrete structural analysis angle.

- principal – agent issues.

From a principal-agent point of view it is worthwhile to note

- In both the old and the new system there are two hierarchical relationships: state-region (county); and region (county) - hospital, however with a clearer placement of responsibility (politically, financially, and operationally) in the new structure.
 - However, *the content and structure* of the post-reform relationships have changed. In a sense the ‘rules of the games’ have been redefined.
 - Furthermore, the financial incentives have not been changed (yet).

The following is a short elaboration of how *the environment and character of the relationship* has changed. P-A-theory is not very explicit about this issue, but it obviously is an important parameter – at present the parameter in the Norwegian context

- there are now fewer entities involved (5 vs. 19 counties earlier) – in principle making the overall steering easier and simpler
- there is only one political principal (the minister/parliament) – creating clearer objectives than in a situation with two political principals (minister and 19 counties)
- legal binding contracts can be used – hence creating greater commitment and obligation (provided that contracts are legally enforced. However, initially, the important thing is the presence of this possibility – a new rule - not whether it is enforced)
- Whether there really is more operational autonomy at the regional level compared to the county situation is unclear. However, if positive, it possibly takes place within more constraining objectives laid down by the principal (minister). On the other hand, if more uniform service levels across regions are desired – and this is the case – then the model has the potential to realize this
- there is more operational autonomy at the hospital level – whether this is an advantage from a P-A point of view is debatable. Provided that incentives are appropriate, it could be an advantage (basically because the principal should care about objectives and results, not means – this is left to the agent), including the fact that the hospital now is the residual claimant and has sole responsibility for personnel and capital
- there are clearer lines of command and reporting
 - New steering/instruction methods are available: statutes, general meeting and steering documents (and will later on be supplemented by financial incentives). In addition, the public rule of ‘instruction’ has been abandoned – removing the possibility of too direct meddling by the principal.

Overall, at best it can be concluded that the new division of responsibility has *the potential* for better congruence between preferences of the principal and the behaviour of the agent. However, there are many caveats. In particular whether the political and managerial culture really change which in turn to a certain extent depend on appropriate incentives.

For instance, will the regional and hospital boards keep an arm's length distance to operational and tactical matters? If not, 'meddling boards have substituted 'meddling politicians'. It should be noted that the staff at the new regional headquarters to a considerable extent (more than 50%) have been recruited outside the old county administrative headquarters. Hence, new blood and inspiration has been brought into play, opening the possibility of a new beginning. And several hospital CEOs have been replaced in the wake of the reform. Again, the possible inertia created by 'new structure – same persons' to a certain extent is not present.

Formally, one can note that several necessary conditions for improvements have been put in place. . However, the sufficient conditions to a considerable extent are made up of financial incentives which at present have not been redesigned.

- A transaction cost/discrete structural analysis perspective

The following analysis ideally should have been carried out prior to the reform establishing prima facie evidence about the possible net advantages of a state ownership model compared to possible alternatives. Here, however, it is a post festum analysis trying to include bits of evidence established so far.

The basic idea is to list possible components in a calculation of net transactions costs of various models. 'Net calculation' means that the possible efficiency enhancing or decreasing features have to be compared with possible increased/decreased costs of running the system (transaction costs): management costs, contracting costs, enforcement costs, monitoring costs etc.. It will be apparent that at this level of analysis only broad qualitative statements can be made. For instance, one can point out the possibility of ratchet effect. However, quantifying it is an entirely different matter– and just to indicate that actual or potential ratchet effects in one organizational form is greater/less than in another is very difficult⁴⁰.

In the following everything is compared to the county-model unless stated otherwise.

1.The reform should in principle decrease transaction costs related to management. For instance, at the old county headquarters about 700 persons were employed compared to about 200 in the new regional headquarters (press meeting with minister of health, January 4, 2002)⁴¹. Note that if one can argue that

⁴⁰ Note also that it is here that the excerpt from Simon presented earlier is relevant. A traditional, marginal mathematical analysis basically would not capture many relevant salient features, whereas the far more pedestrian approach here forces the analyst to pay attention to many relevant institutional, organizational, and practical details that are left out of the mathematical analysis that at best – given the many restrictive assumptions and incomplete picture of contemplated changes – can provide qualitative conclusions – but definitely cannot indicate the size – and hence what really is to be gained by a change. For an ex ante evaluation of a reform the latter appears to be far more relevant the former.

⁴¹ However, this does not mean that 500 persons have been made redundant in the short run. As part of the reform county employees were guaranteed that they could find jobs at the hospitals or the new headquarters. These shows how careful on

things will not be worse in the new structure, the reduction is a net advantage. A priori there is nothing to indicate that the reform should create a worse situation. However, at the same time one must note that the ministry of health has increased personnel because of a more direct involvement, for instance in the so-called 'owner section' (eierskabsafdelingen) – and as awareness of the need for a possible 'super corporate structure' at the ministerial level develops this number may increase further. - Furthermore, all the administrative units now are bigger. The empirical question is whether there are increasing or decreasing returns to 'administrative and management scale'. In general there is no doubt that increased size of the organizational units often carry the risk of increasing complexity. However, in the Norwegian case, it may be counteracted by a clear demarcation of what is expected by the regions, and several of the hospital in the new 'twin-hospitals construction' (more or less merged hospitals) probably were too small to fully to utilized a professional management structure. Thus, a priori it is difficult to argue clearly in favour of one the positions, but the present writer tends to believe in constant or weakly increasing returns to management scale.

2. Furthermore, there are fewer separate management units. A total of 47 enterprises (helseforetak) have been established compared to 80+ hospitals earlier. This leaves considerable room for additional decreased management costs. Furthermore, due to hospital mergers the potential for increased technical efficiency is present – provided that scale or scope effects are present.

3. At present it is impossible to say whether the coming financial incentive system will add more or less administration costs. Experience from the English reform seems to indicate an increase, [67]. However, the Norwegian point of departure is rather different from that of the UK, e.g. that a partial DRG system was in place etc.. In this connection one should carefully distinguish between the start-up and subsequent equilibrium situation. For instance, there is no doubt that introduction of capital assets in the accounts will increase transaction costs initially (setting up a system to register assets, calculate depreciation etc), but later on it will become a simple routine.

4. There is the possibility of ratchet-effects⁴². This is a phenomenon due to the fact that if future targets (financial, production, quality) are known or expected to depend on today's performance, it may influence negatively today's efforts. Obviously, if a hospital in a sense is punished by meeting or over fulfilling the current period's targets by being imposed (far) higher targets in the next period, it may temper this period's activities. In an environment with short term contracts, it is a distinct possibility, but can to a certain extent be mitigated by developing longer-term binding contracts.

If ratchet effects are present, it means that efficiency is lower than in a situation without ratchet effect. However, one must be careful to remember, that the possibility for ratchet effects is not unique to the reform. It is an ever-present possibility due to short term contracting. The empirical question is whether it will be present to a greater extent under the reform. For instance, if the budget between the county and a hospital used to be like a short term contract ('agreement') with stated production and quality targets, it may be expected that meeting this period's targets – maybe with a small retained surplus – will influence next period's targets upward. Compared to this situation there may not be very large differences post reform. Note also that the presence of ratchet effects may be influenced by the degree of information asymmetry and monitoring activities.

should approach the calculation of transaction costs. However, in the longer run, there may be a real decrease in the sense that vacancies are not filled.

⁴² For an accessible introduction see [102], p. 232-36. For a far more formal exposition see chapter 9 in [103]

5. The possibility for *hold-up effects*⁴³ is considerable in a situation where hospitals take on a greater responsibility for capital (use and procurement). Careful design of that scheme is needed. The hold-up-effect has its root cause in hesitation to invest due to the risk that the contracting part subsequently will appropriate possible profits. It presupposes assets specificity, i.e. that once invested it basically has no use outside its original area, for instance a MR-or CT-scanner, and that the contracting part will try to extract part of the surplus resulting from the asset specific investment.

From the above short, non-exhaustive exercise it appears that ex ante it is difficult to draw any definitive qualitative conclusions, much less quantitative conclusions. The important point is basically to stress that a more thorough analysis of alternatives prior to the reform undoubtedly would have revealed the same. It is of course not an argument against the reform, but definitely should temper expectations and induce some realism of the type: there are no simple solutions.

- Other issues

It is important to focus on the changed status of hospitals. In terms of expected (technical) efficiency gains much hinges on the effects of this. In many respects hospitals are supposed to mimic a private company (own board, overall responsibility, including capital depreciation and procurement, and residual claimant). It is therefore important to have a critical look at some of the underlying assumptions – namely the supposed efficiency supervisory of this model (one of the assumptions not addressed explicitly anywhere in the Norwegian White Papers).

In the Norwegian model the hospital enterprise becomes the residual claimant meaning the net surplus is assumed to enter the preference function of hospital management and that the hospital can carry forward gains and losses to subsequent periods. The residual cannot be taken out for personal gain, i.e. stock options and the like, but there may be bonus arrangements⁴⁴. It creates a superficial similarity to profit. However, profit can, if desired, be taken out of a private company and distributed to the owner. Hence, in the autonomous hospital model the owner pressure for profitability is not present to the same extent like in a private company⁴⁵. In addition, the net surplus of the hospital is not subject to taxation like profit in a private company – hence the overall incentive situation is different from that of a private company.

There are at least three other important differences compared to a private company: a hospital is not allowed to go bankrupt and revenues come more or less automatically from a third party – either as activity based reimbursement or a (capped) global budget. Furthermore, most activities will take place in a non-price environment, often without any competition, however, defined. Those conditions along with the previous differences are important to remember if one expects behaviour similar to that of a market based private company. Basically, they undoubtedly make it difficult to expect marked effects of the new organizational attachment.

⁴³ See Williamson and Laffont respectively for a general and more formal treatment, [104,38]

⁴⁴ Contrary to much popular thinking it may not always be a good idea to use high powered individualized incentives, in particular in situations where there are many conflicting goals like in a publicly owned hospital, see [96]

⁴⁵ Whether maximization of profits is a stronger driving force than maximization of non-appropriable net surplus or a break even constraint is an interesting point – in particular in real-world models of firms with separate owners and managers and not the stereotype owner-manager model assumed in elementary (and advanced) microeconomics.

The question of capital is also important. In a private company the inclusion of depreciation means that (accounting) profits *ceteris paribus* should be greater and that part of it in principle should be retained in the company for future investments⁴⁶. The same holds for a hospital where the net-surplus always as a minimum should be equal to depreciation and retained for future investments (as increased net-capital). If not there will not be capital for the future. One can of course try to borrow investment funds in the market, e.g. for a new MR-scanner, and the amortization and depreciation becomes an ongoing process. However, at present it is unclear to what extent this type of borrowing will be allowed. Furthermore, it is probably unrealistic to expect a hospital to be able to invest (borrow) maybe up till several billions for new hospital buildings and equipment. Consider for instance 5 billion of which at least half is for buildings. If they are depreciated over 25 years it is equivalent to 100 millions per year. It is of course possible, but most likely many investments will be financed directly by the state – questioning the whole idea about hospitals being responsible for capital because in return the state (logically) should expect to receive the net surplus from depreciations (and in addition also amortization). In many respects the business logic of capital use and procurement is hard to apply to the public sector⁴⁷.

On the other hand one should expect greater focus on efficiency issues due to the more professional hospital and regional boards and management, and much undoubtedly will depend on how much pressure the board can put on regional and hospital management to produce efficiently and to what extent norms and culture within hospitals change accordingly.

Another issue is equally pertinent, namely how hard the budget constraint will be, [68,69]. For how many years will a hospital be allowed to accumulate a deficit? Will the regional board, and ultimately Parliament, bail the hospital out? If positive the whole idea of turning hospitals into enterprises fails. If negative, a tough turn around should be set in motion – probably accompanied by stories in the press⁴⁸. Symmetrically one can ask the same about net surpluses – even if they are accumulated to finance investments. Can the regional board or Parliament resist in a tight situation the temptation to appropriate some of the surplus – and hence undermining the necessary trust?

⁴⁶ Caution must be shown when approaching this topic. Formally depreciations are an operational expenditure, but at the same time assets on the balance sheet are reduced accordingly. As such, depreciations are not ‘real money’ (as opposed to amortization), but a useful accounting convention and relevant costing/pricing purposes. In the so-called money flow analyses one will see the effects of these differences.

⁴⁷ The issue of private loan capital in the hospital sector is debated in England. Since 1992 the British government has favoured paying for capital works in the public service through the private finance initiative – PFI – that is through loans raised by the private sector. For hospitals this means that a private sector consortium designs, builds, finances, and operates hospitals. In return the individual NHS trust pays an annual fee to cover both the capital cost, i.e. depreciation and interest, and maintenance of the hospital etc. over the 25-35 year life of the contract. For a critical British perspective see [105].

⁴⁸ However, in this and other situations it is going to be interesting to see the ‘public’ behaviour of key players in the hospital, in particular senior consultants. In the public era they occasionally made up a vocal group that contradicted both hospital management and politicians – in the name of freedom of speech for public employees, and the notion that it is almost an obligation to take part in public debates etc – whenever (structural) changes were contemplated. However, one rarely sees this in private companies under similar circumstances. Hospital employees changed their employment status as a consequence of the reform –and the future choice given to some vocal employees may be ‘shut up or exit’ – put somewhat more diplomatically than stated here.

This basically concerns whether effective new behavioural rules are introduced. If not, much will basically be like in the old county system.

Some conclusions and perspectives

In this lengthy essay a conceptual and theoretical scheme for decentralized integrated health care systems of the northern European kind has been developed – but with small changes it is also applicable to among others, Italy, Spain, and Portugal. To illustrate the thinking the recent Norwegian reform has been put into a context, not only geographically but also theoretically. The geographical context is that of Scandinavia. The essay thus serves the double purpose of presenting and evaluating the Norwegian reform and to take part in the neglected discipline of developing a theory of reform in the sense of explaining some of the driving forces behind reforms in integrated health systems, predicting the effects of reform based on relevant theory, and finally a (very) simple taxonomy of reforms.

The Norwegian reform has the potential to be an improvement compared with the county model. However, there are many conditions that need to be fulfilled for this to happen – so many that one rightly can be sceptical. On the other hand there is nothing to indicate that it will get worse. In many respects the idea of unified responsibility is right as shown in the theory section. Whether this unification takes place at state or regional/county level is immaterial here.

If for instance, no improvement is seen in terms of efficiency it may nevertheless be that the break up of old and established patterns and models can create a dynamic and innovative spirit. This has not been among the stated reform objectives but may become an important side benefit⁴⁹.

From other perspectives, in particular local self determination and autonomy, it may be desirable that unification of responsibility had taken place at the county level. The term ‘democratic deficit’ has been used in the debate, and the involvement of user groups and patient associations at the regional and local level basically cannot make up for this deficit because they represent narrow interests, not broader social dimensions. It seems, however, that Norwegian parliamentary politicians find it rather difficult to accept the heterogeneity among counties that result from a decentralized system like what is found in Denmark and Sweden and are willing to accept a democratic deficit as a cost. On the other hand, it is somewhat unclear exactly what the character of the democratic deficit is. Does it mean involvement at the operational level, does it mean that citizens’ wishes are more clearly articulated and heard, and priority setting happens accordingly, is it to legitimise taxes etc.. From a political point of view (devolution) it is clear that centralization has taken place, whereas in terms of financing and operation there is basically status quo.

⁴⁹ The author is member of the board of one of the few Danish hospitals with a status approaching the New Norwegian model and must note (unscientifically) that there is a somewhat intangible effect of this status: more focus, an apparent more professional approach to management, focus on follow-up of targets in the contract etc... However, some of these effects are very difficult to capture in a formal analysis. Similarly, he is also member of the board of the largest commercial private hospital in Denmark and cannot attest that this hospital is run more professionally than the ‘trust-like’ public hospital.

The size of the counties has not been touched on above as a contributory factor to explain the reform. The Norwegian counties are small compared to Denmark and Sweden. The size varies between 100,000 to 250,000 inhabitants – in Denmark the smallest county has 250,000 inhabitants. There are two problems related to size: local fiscal ability to finance a reasonable self-sufficient hospital system and the need for cooperation with other counties regarding a division of specialties. Regarding the first issue there may be problems, in particular because the smallest counties often also are the poorest, and no matter what kind of fiscal redistribution system that is in place, it may be problematic. A recurrent theme has been the rather poor cooperation among the counties. The smaller counties, the more cooperation is needed – but as a rule the smaller a county the more self-conscious and self-sufficient. Therefore one can find indications that there was a need to have a look at county size. However, here the geographical spread and lay-out of Norway makes it difficult just to think in terms of merging bordering counties.

Like with most reforms the underlying explicit theory of the Norwegian reform is scarce – and if present, mostly is composed of ad hoc pieces, never a more coherent picture. The term ‘purchaser – provider’ is recurring, but the ideas of quasi-markets are never invoked. Instead it is used as a short term expression of clarification of the role as demander/purchaser/politician on the one hand and provider on the other. Similarly, there are passing references to principal-agent thinking, but a more systematic analysis is never undertaken. Interestingly one can, however, identify an underlying sceptical attitude to fiscal federalism and local finance, i.e. the decentralized model (at least as applied to health care). There is a rather well developed theory in this area that in a variety of contexts has been used to underpin the Scandinavian approach to decentralization, e.g. [44,46].

From a research perspective it is interesting to note that most reforms do not rely on a very strong theoretical basis. Most theories have been post hoc rationalizations of actual reforms – or if present from the inception they often are so crude that they actually may be almost misleading, e.g. managed competition models in the Enthoven vein of thinking. The point here is that if one does not understand the institutional context in which a particular health care system is embedded, for instance, the decentralized and integrated Scandinavian model, and then to this unrecognised setting apply models that (at best) have been for instance developed in a US context, one most likely will go astray.

The science of health care reform is still dismal, [50].

It may be worthwhile to speculate about the possibility of similar reforms in Denmark and Sweden.

On the one hand it is easy to see a common pattern to that of Norway: increasing interest at government and parliamentary level for (promised) results, e.g. fulfilment of various waiting list initiatives and cancer, heart, and psychiatry plans, and in general increasing interest in health care as one of the pillars of the welfare state (or is it society?). The annual agreement between for instance the Danish government and the Association of Counties has become longer and more detailed over the past 5-7 years – meaning that targets and demands have become far more precise (but still very elastic from a stringent follow-up point of view). Furthermore, in Denmark two parties with almost 20% of the parliamentary

seats consider the counties to be a superfluous administrative level⁵⁰. In Sweden the question of the counties interestingly enough was not part of the large White-paper-project HSU-2000⁵¹, and in Denmark a large project on the distribution of tasks across the three levels (state, county, municipality) also was given a mandate that did not allow the committee to question neither size of the units nor the number of levels, [70]. Similarly, the Danish Hospital Commission that delivered a White Paper in 1997 hardly touched the subject apart from a passing remark about the possibility of reducing the number of counties, [71]. There are two conflicting interpretations of these white-paper-positions: either reluctance by the governing parties to address a touchy subject or that the current set-up is working fairly well. The end result is the same, however: the decentralized model has not seriously been questioned despite increasing top-level interest.

On the other hand, and a partial explanation, the Swedish and Danish decentralized health care system is far more aligned in the sense discussed earlier along with having greater units in terms of underlying population meaning that there is far greater stability than in the Norwegian case. As such there is no strong driving force for change.

Two possibilities however, may change this situation. First of all, that the counties cannot deliver and/or document the promised results⁵² leading to a search for something better – either a state run hospital system or a system like the Finnish with the municipalities in the driver's seat. Secondly, that the counties themselves voluntarily start changing, for instance through mergers, creating bigger geographical units with a larger underlying population basis. This is what is happening in Sweden where there have been mergers in the south (the so-called Skåne Region) and in the west around Gothenburg.

In May this year the Danish Economic Council published a report containing an analysis of the relationship between the three levels, [72], chapter II. In conclusion it was noted that Parliament seems to accept less and less regional variation. However, an important justification – and apparently the dominating according the Economic Council – for a decentralized system is to allow for differences according to local needs and priorities, cf earlier sections in this paper. Hence, this development questions the relevance of the county level, the Economic Council notes.

There is no explicit proposal to let the state take over, but by implication it must be the underlying conclusion, however.

⁵⁰ As a political statement this is part of the picture. The idea is based on two premises: a) that much administration could be saved – assuming that a regional administrative level can be avoided altogether if the state takes over, and b) that there are too many levels with the right to levy taxes, i.e. that coordination and steering of overall taxation is insufficient or lax. However, none of the two parties have been very explicit about these two arguments, i.e. no (long or longer) position papers have been developed.

⁵¹ HSU 2000 – the committee on the financing and organization of the health care sector (Kommittén om hälso- och sjukvårdens finansiering och organisation) began its work in 1992 and finished in 1999. However, the mandate and composition of the committee was changed when the social democratic government took over in 1994. In contrast to the original mandate it was explicitly stated in the new mandate that the role of the counties should not be considered.

⁵² In Denmark the center-right government has put considerable prestige into adding 1.5 billion Dkr. to the hospital budget to combat waiting lists. It comes on top of a similar amount approved by the previous government. This means that initially hospitals have to increase production by about 8% just to fulfil what was agreed with the previous government and then on top of this another 6-8% - in principle within 2002 (and maybe the first quarter of 2003). The minister of health has more or less said: deliver or else ...

The Economic Council opens for debate that is relevant and needed. However, in relation to the counties, and in particular to health, there unfortunately is no real substance to the conclusion. The relevant chapter in the report hardly addresses the county level but uses most space on the municipal level and (relevant) general and common themes in fiscal federalism/decentralization, but there is no analysis of the health system at all to back-up the policy recommendations of the report.

It is interesting to note that while the Council invokes traditional arguments from the fiscal federalism literature, including the Tiebout-thinking, it does not pay sufficient attention to importance of the increasing tendency to free choice of provider, in particular across jurisdictional borders. Oates recently noted:

‘decentralized levels of government have their *raison d’être* in the provision of goods and services whose consumption is limited to *their own jurisdictions*’, [45], p. 1121, italics added.

pointing out the crucial feature of locality. As noted in the theory section free choice can function as an eroding mechanism to much decentralization unless the the decentral levels develop coping mechanisms⁵³.

In summary then, basically there is nothing to indicate that a state model is in the shaping in Denmark or Sweden, but it seems that the issue will come on the political agenda, and much will depend on how the counties respond (defensively or by going on the offensive and demonstrate results, cooperation etc.), and how well proponents of a state model can explain advantages rather than relying on the old parable, about the roman emperor who was about to have a new court singer. Two finalists were left. After having heard the first, the second was chosen without audition.

⁵³ The Danish government recently published a small booklet as part of their program for modernisation. The title is very indicative of the thinking: Welfare and free choice, [106].

References

1. Böcken Jan, Butzlaff Martinn, and Esche Andreas (eds). Reforming the Health Sector. Güthersloh 2001
2. Charpentier Claes and Samuelson Lars A. Effekter av en sjukvårdsreform - En analys av Stockholmsmodellen. EFI, Stockholm, 2000
3. Le Grand Julian, Mays N, and Mulligan J. Learning from the NHS Internal Market. King's Fund Institute, London 1998
4. Robinson R, Le Grand J, and (eds). Evaluating the NHS Reforms. King's Fund Institute, London 1994
5. Saltman RB and Figueras J. Analyzing the evidence on European health care reforms. Health Affairs 1998; 17: 85-108.
6. Gauld Robin. Revolving Doors: New Zealand's Health Reforms. Victoria University, Wellington, 2001
7. Jacobs Alan. Seeing difference: market health reform in Europe. Journal of Health Politics, Policy and Law 1998; 23: 1-33.
8. OECD. The reform of health care systems. A review of seventeen OECD Countries. OECD, Health Policy Studies No.5, Paris 1994
9. OECD. The Reform of Health Care. A comparative analysis of seven OECD countries. OECD, Health Policy Studies No.2, Paris 1992
10. OECD. Health Care Systems in Transition. The search for efficiency. OECD, Paris 1990
11. Saltman RB, Figueras J, and Sakellarides C. Critical Challenges for Health Care Reforms in Europe. Open University Press, Buckingham, 1998
12. Shemer Joshua and Vienonen Mikko. Reforming Health Care Systems. Gefen Publishing House, Jerusalem 1995
13. Smith Peter C. Reforming Markets in Health Care. An Economic Perspective. Open University Press, Buckingham, 2000
14. van de Ven, Wyand P, Schut Frederik T, and Rutten Frans FH. Forming and reforming the market for third-party purchasing of health care. 1994; 39: 1405-1412.
15. NHS. Delivering the NHS Plan -next steps on investment - next steps on reform. NHS, London, April 2002
16. Wanless Derek. Securing our future health - taking a long-term view. Final Report. H.M Treasury, London 2002
17. Williamson Oliver E. The Mechanisms of Governance. Oxford University Press, Oxford 1996
18. Ot.prp.nr.66(2000-2001) Om lov om helseforetak m.m. (helseforetaksloven). Oslo 2001
19. Mossialos E. Citizens' views on health care systems in the 15 member states of the European Union. Health Economics 1997; 6: 109-116.

20. NOU. Patienten først! Ledelse og organisering i sykehus. NOU 1997:2, Oslo 1997
21. Amtsrådsforeningen, Hovedstadens Sygehus Fællesskab, and Sundhedsministeriet. Patienters vurdering af danske sygehuse. Amtsrådsforeningen, København 2000
22. Pedersen Kjeld M. The World Health Report 2000: Dialogue of the deaf? *Health Economics* 2002; 11: 93-101.
23. Pedersen KM. No. 34 in the league tables. Cause for concern? A frank comment. (in Danish only: Nr. 34 på hitlisten. Er der grund til bekymring? En åbenhjertig redegørelse og kommentar.). *Ugeskr Læg (Journal of the Danish Medical Association)* 2001; 162: 4703-4709.
24. Blendon RJ, Kim M, and Benson JM. The public versus the World Health Organization on health system performance. *Health Affairs* 2001; 20: 10-20.
25. Murray CJL, Kawabata K, and Valentine N. People's Experience versus People's Expectations. *Health Affairs* 2001; 20: 21-24.
26. Hanning Marianne, Danneskiold-Samsøe Bent, and (eds). *Ventetidsgarantier i Norden - veje til kortere ventelister og ventetider i sundhedsvæsenet?* DSI, København 1996
27. Gerdtham U.-G., Rehnberg C, and Tambour M. The impact of internal markets on health care efficiency: evidence from health care reforms in Sweden. *Applied Economics* 1999; 31: 935-945 .
28. Gerdtham Ulf-G, Löthgren M, Tambour M, and Rehnberg C. Internal markets and health care efficiency: a multiple-output stochastic frontier analysis. *Health Economics* 1999; 8: 151-164.
29. Engberg Lars. *Tre amters kontraktstyring af sygehusene .* DSI, København 1997
30. Kjekshus LE, Nerland SM, Hagen Terje, and Botten Grethe. *De somatiske sykehusenes interne organisering - En kartlegging av 58 somatiske sykehus i Norge, 1999 og 2001.* HERO Skriftserie 2002:1, University of Oslo 2002
31. Kutzin Joseph. A descriptive framework for country-level analysis of health care financing arrangements. *Health Policy* 2001; 56: 171-204.
32. Twaddle Andrew C. *Health System Reforms - toward a framework for international comparisons.* *Soc Sci Med* 1996; 43: 637-654.
33. Chalkley Martin and Malcomson James M. Contracts for the National Health Service. *The Economic Journal* 1996; 106: 1691-1701.
34. Chalkley Martin and Malcomson James M. Contracting for health services with unmonitored quality. *The Economic Journal* 1998; 108: 1093-1110.
35. Williamson Oliver E. *Markets and hierarchies.* Free Press, New York 1975
36. Le Grand Julian and Bartlett Will (eds). *Quasi-markets and social policy.* MacMillan Press, London 1993
37. Bartlett, Will, Roberts Jennifer A, Le Grand, Julian, and (eds). *A revolution in social policy. Quasi-market reforms in the 1990s.* The Policy Press, Bristol 1998

38. Williamson Oliver E. The economic institutions of capitalism. The Free Press, New York 1985 1985;
39. Hart Oliver. An economist's perspective on the theory of the firm, chapter 7 in Williamson OE (ed): Organization theory, expanded edition. Oxford University Press, New York and Oxford 1995 2002;
40. Williamson Oliver E. Comparative Economic Organization: The analysis of discrete Structural Alternatives. Administrative Science Quarterly 1991; 36: 269-296.
41. Simon Herbert. Rationality as Process and as Product of Thought. American Economic Review 1978; 68: 1-16.
42. Saltman Richard B and von Otter Casten. Planned Markets and Public Competition. Strategic Reform in Northern European Health Systems. Open University Press, Buckingham 1992
43. Saltman RB. Patient choice and patient empowerment in northern European health systems: A conceptual framework. International Journal of Health Services 1994; 24: 201-229.
44. Oates Wallace E (ed). The economics of fiscal federalism and local finance. Edward Elgar Publ., London, 1998
45. Oates WE. An Essay on Fiscal Federalism. Journal of Economic Literature 1999; 37: 1120-1149.
46. Rattsø Jørn (ed). Fiscal federalism and state-local finance : The Scandinavian perspective. Edward Elgar Publ, Northampton, MA , 1998:
47. Hansagi Helen, Jonsson Egon, and Calltorp Johan. Privat och offentlig primärvård. En jämförelse inom Stockholms Läns Landsting. POV-projektet, Huddinge 1991
48. SPRI. Stockholmsmodellen- Beslutsbefogenheter och ekonomiskt ansvar. SPRI, Stockholm 1994
49. Stockholms Läns Landsting. Stockholms Modelln - Mer och bättre sjukvård för pengarna. SStockholms Läns Landsting, Stockholm 1991
50. Pedersen Kjeld M. Reformitis? Sceptical remarks on the dismal science of reforms in the health care sector. p.46-56 in Alban A and Christiansen T (eds): The Nordic Lights. New Initiatives in Health Care Systems Odense University Press, Odense 1995
51. Sosial og Helsedepartementet, eier og foretaksgruppen. Sykehusreformen - noen eierperspektiv. Oslo, September 14, 2001
52. Tønne Tore. Effektivisering av norske helsevesen. Foredrag i Polyteknisk Forening, 3.april 2001
53. Helsedepartementet. Helsedepartementets oppdrag til sykehusene. Pressenotat, 4.januar 2002
54. Helsedepartementet. Den ytre og indre reform (PowerPoint slides from press meeting). Material used by the minister of health, January 4, 2002
55. Arnesen Trude and m.fl. Motmelding til Sørensenutvalgets innstilling. 1.utgave, 20.juni 1999
56. Pettersen Inger Johanne. Fra plan til marked - noen perspektiver på sykehusreformen (from plan to market - perspectives on the hospital reform). Tidsskr Nor Lægeforening 2001; 121: 2186-2188.

57. Norges Offentlige Utredninger. Sykehustjenester i Norge. NOU 1987: 25, Oslo 1987
58. Norges Offentlige Utredninger. Hvem skal eie sykehusene? NOU 1996: 5, Oslo 1996
59. Norges Offentlige Utredninger. Hvor nært skal det være? Tilknytningsformer for offentlige sykehus. NOU 1999: 15, Oslo 1999
60. Ot prp nr 48 (1997-98) Om lov om endringer i sykehusloven og i lov om psykisk helsevern (Sterkere nasjonal styring og regionalt samarbeid). Oslo 1998
61. Ot.prp. nr. 25 (1999-2000) Om lov om fylkeskommunale sykehusselskaper m.m. Oslo 1999 2002;
62. Innst.S. nr. 24 (2000–2001). Oslo 2000 2002;
63. Frederik Carlsen. Statlig spesialisthelsetjeneste – Kommentar til Ot.prp. 66 (2000-2001). Økonomisk Forum 2001;
64. Hagen Terje P, Iversen T, and Magnussen J. Finansieringsordninger for de statlige helseforetakene. Økonomisk Forum 2001; 7-12 .
65. Kaarbøe Oddvar and Kjerstad Egil. Statslig eierskap av sykehus - valg av selskapsform, chapter 10 in Askildsen Jan Erik and Haug Kjell (red): Helse, økonomi og politikk. Udfordringer for det norske helsevesenet. Cappelen Akademisk Forlag, Oslo 2001
66. Sosial-og helsedepartementet. Mandat og sammensetning for utvalg som skal vurdere framtidig finansieringssystem for spesialisthelsetjeneten. Sosial- og helsedepartementet, Oslo, February 2002 2002;
67. Croxson Bronwyn. Organisational costs in the new NHS. An introduction to the transaction costs and internal costs of delivering health care. Office of Health Economics, London 1999
68. Kornai J. The soft budget constraint. Kyklos 1986; 39: 3-30.
69. Kornai Janos and Eggleston Karen. Welfare, choice, and solidarity in transition. Reforming the health sector in Eastern Europe. Cambridge University Press, Cambridge 2001
70. Indenrigsministeriet. Fordelingen af opgaver i den offentlige sektor, I og II. Betænkning nr. 1366. Indenrigsministeriet, København 1998
71. Sundhedsministeriet. Udfordringer i sygehusvæsenet. Betænkning fra Sygehuskommissionen, betænkning nr. 1329. Sundhedsministeriet, København 1997
72. Det Økonomiske Råds Formandskab. Dansk Økonomi foråret 2002 (The Danish Economy, spring 2002). Det Økonomiske Råd, København 2002
73. St. Meld nr. 9 (1974-75): Sykehusbygging m.v. i et regionalisert helsevesen. Oslo 1974 2002;
74. St.meld. nr. 44 (1995-96) Ventetidsgarantien - kriterier og finansiering. Oslo 1996
75. St. Meld nr. 24 (1996-97) Tilgjengelighet og faglighet. Oslo 1967
76. Ot. prp 48 (1997-98). Oslo 1998 2002;

77. Working Group, Finnish Ministry of Social Affairs and Health. PROMEMORIA AV ARBETSGRUPPEN FÖR TRYGGANDE AV HÄLSO- OCH SJUKVÅRDEN I FRAMTIDEN. Promemoria 2002:3swe, Helsinki 2002
78. SOU 1996: 163. Behov och resurser i vården - en analys. Stockholm 1996
79. SOU 1997: 154. Patienten har rätt. Stockholm 1997
80. SOU 1999: 66. Go vård på lika villkor? Om statens styrning av hälso-och sjukvården. Stockholm 1999 2002;
81. Roberts John. Perfectly and imperfectly competitive markets, p. 534-543 in Eatwell J, Milgate M and Newman, P (eds): The New Plagrav, The world of Economics. The Macmillan Press, London 1991:
82. Champy James. Reengineering Management. Harper Business, New York 1995
83. Hammer Michael and Champy James. Reengineering the Corporation. A manifesto for business revolution. Harper Business, New York 1993
84. Phelps Charles E. Welfare loss from variations: further considerations. Journal of Health Economics 1995; 14: 253-260.
85. Peterson Mark a (ed). Healthy Markets? The new competition in medical care. Duke University Press, Durham 1998
86. Culyer Anthony J and Evans Robert G. Mark Pauly on welfare economics: Normative rabbits from positive hats. Journal of Health Economics 1996; 15: 243-252.
87. Fuchs Victor R. Economics, values, and health care reform. American Economic Review 1996; 86: 1-24.
88. Musgrave Richard A and Musgrave Peggy B. Public Finance in theory and practice. McGraw-Hill, London, 1973 (1st edition.Later editions available)
89. Tiebout Charles M. A pure theory of local government expenditures. Journal of Political Economy 1956;
90. van de Ven, Wynand PMM. Market-oriented health care reforms: trends and future options . Soc Sci Med 1996; 43: 655-666.
91. Enthoven Alain C. In pursuit of an improving national health service. The Nuffield Trust, Londong 1999
92. Enthoven Alain C. Theory and Practice of Managed Competition in Health Care Finance. North Holland, Amsterdam 1988
93. Enthoven Alain C. Reflections on the Management of the National Health Service: An American looks at incentives to efficiency in health services management in the UK. The Nuffield Trust, London 1985
94. Enthoven Alain C. Management information and analysis for the Swedish health care system . IHE Working Paper 1989:7, Lund 1989
95. France George. Healthcare quasi-markets in a decentralised system of government chapter 8, p. 155-174, in Bartlett,Will; Roberts Jennifer A; Le Grand,Julian; (eds): A revolution in social policy. Quasi-market reforms in the 1990s. Bristol 1998.

96. Holmstrom Bengt and Milgrom Paul. Multitask Principal-Agent Analyses: Incentives Contracts, Asset Ownership, and Job Design. *The Journal of Law, Economics, & Organization* 1991; 7: 24-52.
97. Alban Anita and Jeppesen Jens-Otto Skovgaard. From global Budgets to Contracts in the Danish Hospital Sector, p. 106-125 in *The Nordic Lights*, Alban A and Christiansen T (eds), Odense University Press, Odense 1995. 2002;
98. Bondevik-regeringen. Regjeringserklæring 2001 (Sem-erklæring). Oslo 2001 2002;
99. Pedersen KM. Persillebedet: dit, mit, vores - alles? Territoriale ændringer i sundhedsvæsenet. Det frie sygehusvalg og funktionsbærende enheder, chapter 11 in Jørgensen, TB and Klausen KK (eds): *Territorial Dynamik*. Copenhagen 2002
100. Department of Health. NHS Foundation Hospitals to be freed from Whitehall control. Press Release, 22nd May, 2002, announcement by Health Secretary Alan Milburn.
101. Sosial og Helsedepartment, eierafdelingen. Styringsdokument - Helse SØR RHF (as an example). Oslo, December 28, 2001
102. Milgrom Paul and Roberts John. *Economics, organization & management*. Prentice Hall, Englewood Cliffs, New Jersey 1992
103. Laffont Jean-Jacques and Tirole Jean. *A theory of incentives in procurement and regulation*. The MIT Press, Cambridge, Mass.1993
104. Laffont Jean-Jacques and Martimort David. *The theory of incentives. The principal-agent model*. Princeton University Press, Princeton 2002
105. Pollock AM, Shaoul J, and Vickers N. Private finance and 'value for money' in NHS hospitals: a policy in search of a rationale. *BMJ* 2002; 324: 1205-1209.
106. Finansministeriet. *Velfærd og valgfrihed*. Finansministeriet, København 2002
107. Alban Anita and Christiansen Terkel (eds). *The Nordic Lights. New Initiatives in Health Care Systems*. Odense University Press, Odense 1995
108. European Observatory on Health Care Systems. *Health Care Systems in Transition: Norway*. WHO, Copenhagen 2000
109. Norwegian Board of Health. *Brief introduction to health services in Norway*. Oslo 1997
110. Van den Noord Paul, Hagen Terje, and Iversen Tor. *The Norwegian Health Care System*. OECD Economics Department Working Papers no.198, Paris 1998;
111. Järvelin Jutta. *Health Care Systems in Transition - Finland*. The European Observatory on Health Care Systems, vol 4, no.1, 2002
112. Haerøe AS and Purola T. Planning and health policy in Finland. *International Journal of Health Services* 1972; 2: 23-34.

113. Hjortsberg Catharina and Ghatnekar Ola. Health Care Systems in Transition - Sweden. European Observatory on Health Care Systems, vol 3, no.8, London 2001

APPENDIX I

Chronology of changes in the Scandinavian Health Care Systems.

- changes in Denmark

Prior to 1970 22 counties and 1055 municipalities. After 1970 14 counties and 275 municipalities.

Responsibility for health care has always been decentralised in Denmark, but prior to 1970 the system was rather fragmented politically, financially and operationally: sickness funds, counties, municipalities and the state were all involved somehow.

1970: *Local government and health care reform.* Fewer counties and municipalities. Counties are given a clearly defined responsibility for health care (initially hospitals, and later 'the practice sector', e.g. privately practicing, but publicly financed, general practitioners, (full and part-time) practising specialists, dentists, physiotherapist etc, and subsidies for medicine).

1973: *Sickness funds abolished.* Financial and planning responsibility for the practice sector transferred to the counties.

1973: On the remnants of part of the sickness fund system a *supplementary voluntary health insurance* system developed. 'denmark', as the mutual health insurance is called today, in 2002 had about 1.7 million members, 35% of the population. The benefits originally and always include co-payment coverage for drugs and dental care – and since the first private commercial hospital was established in 1990 also coverage of elective surgery (up to 85% of a stated maximum per procedure).

1975: *State psychiatric hospitals* transferred to the counties. Counties now fully responsible for somatic and psychiatric hospital care.

1997: budget and accounting reform (for the public sector in general)

Mid 80ies – late 80ies: most counties moved from *line-item budgeting to almost unrestricted frame budgets*. In line-item budgets formal political approval is needed to transfer funds from one account to another, i.e. 'from pencils to penicillin' leaving little room for management responsibility. The change meant that in most cases hospitals freely could move items around in the budget – in some counties with possible exception of the personnel account. This meant increased management responsibility and autonomy at the hospital level.

Late 80ies until mid 90ies: *Management reform at most hospital.* The top-trio model (the Troika model) introduced (general manager, chief nurse and chief physician). It coincides with and largely caused by a systematic move away from line-item budget to (almost) unrestricted frame budgets. During the 90ies departmental managements teams (physician and nurse) introduced concomitant with the introduction of departmental budgets

1987: *Ministry of health* with its own minister of health is established (earlier part of the Ministry of the Interior).

1987 – mid 90ies: Most counties reorganize the political and administrative responsibility for health in one sub-committee of the county council (called the health committee) compared to two sub-committees earlier – thus increasing the political and administrative coordination between primary (practice sector care) and hospital care.

1988: *Formal hospital planning and (central) approval procedures abolished* i.e. left entirely to the counties without interference from central authorities (i.e. Ministry of health or the National Board of Health).

Mid 80ies to 2002: about 25 *hospital closures or mergers* – reduction of somatic beds from around 30,000 to about 19,000. Powerful move towards *same-day surgery more hospital ambulatory care*.

1990: first *commercial private hospital* established (as of 2002 about 5 commercial private hospitals exist with about 150 beds providing mainly elective surgery).

Early 90ies: introduction of *contracts* as alternative to traditional frame budgets. The contracts are formally signed (but not legally binding) agreements between the political body and the individual hospitals setting out targets (patient volume and quality goals) and the associated ‘necessary’ budget to fulfil the targets. It may be viewed as an alternative to a formal provider-purchaser split.

1993: Law about *patients’ free choice of hospital* (except highly specialized treatment). Marginal per diem rates used for settling inter-county reimbursement due to free choice.

1994: The Greater Copenhagen Hospital Corporation is formed (Hovedstadens Sygehusfællesskab, H:S). A board consisting of politicians from two municipalities, ministry officials, and external members governs the construction. Financing comes from the two involved municipalities and the state. The last state run hospital, the National Hospital (Rigshospitalet) was integrated into the new organization.

1993-94: *First waiting list guarantees* – change of scope in 1995 and 1999/2000. However, not very comprehensive guarantees.

1998: Law about *patients’ rights* passed

Late 90ies: increase in *supplementary health insurances* from commercial insurance firms. Benefits usually are limited to elective surgery. Premium usually carried by the holder’s employer. Community rating is used. In 2002 about 100-150,000 persons carried this type of insurance.

2000: Major redesign of the patient *subsidy system for medicine*

2001: The *retailer monopoly of pharmacies is broken* for a limited number of over-the-counter drugs g

2001: *DRG rates* replace (marginal per diem rates) for cross county border free hospital choice patients

2002: *New type of waiting list guarantee*. As of July 1st, patients have a right to seek elective treatment either at private clinics/hospitals or abroad if waiting time is longer than 2 months.

Financing: the Danish DRG rate for treatment in question. Transport costs carried by patient

- changes in Norway⁵⁴

19 counties and 435 municipalities. As of 2002 5 regional health boards.

1967: *National Insurance Scheme* (Folketrygden) created to cover medical expenses for ambulatory care (mainly offered by GPs and hospital based ambulatory care (Poliklinikker)) and subsidies for medicine. The scheme also covers sickness and maternity benefits. Financed by means of a special levy paid by all employees as part of their general income tax, i.e. in reality an earmarked payroll tax.

1969/1970: *The Hospital Act* – the counties assume responsibility for the planning and operation of the hospitals (somatic and psychiatric).

1975: Formation of *five regions for hospital planning purposes*, i.e. to coordinate hospital services, in particular the more specialised service, [73]. Each region has a regional teaching hospital.

⁵⁴ Pieced together from various sources, [107,108,57,59,58,109,20,110]. Some of the points have additional references, e.g. the relevant legislation (or background for it).

1976: *Local government reform* ('Kommunal-reform'), meaning that, among other things that county councils now were elected directly (compared to earlier where the council were made up of politicians appointed by and from the municipalities with a state appointed chairman.) SKETE der også noget med finansiering ('skatteudskrivning'?)

1980: Change in *state financing of hospitals*: moved to sector specific block grants instead of retrospective per diem (kurpenge) reimbursement of the counties. However, taxes levied by the counties accounted only for about 35% of the total funds needed.

1984: *Local Authority Health Care Act*. Primary health care, including primary physicians (GPs), become the well-defined responsibility of the municipalities

1984: The counties take over adult dental care from the state

1986: general block grants introduced and sector specific system abolished

1990: First waiting list guarantees – introduced by central government changed and strengthened several times during the 90ies, [74]

1997: Change in the reimbursement system for hospitals: *mixed budget and DRG-system*. Formally: state subsidies to counties were given in the form of DRGs. Counties were free to decide whether they would reimburse hospitals on a DRG-basis. By 2001 all counties did this.

1997: *Patient free choice of hospital* (excluding highly specialised level)

1998: Responsibility for running nursing homes shifted from the counties to the municipalities. Home care was already a municipal responsibility.

1999: *Strengthening of regional planning*, [75] [76] Each region is legally obliged to submit plans for approval to the Ministry of Health and Social Affairs and obligation to provide follow-up information on implementation. Basically stronger state coordination and steering.

1999/2000: Legislation allowing the counties to create more autonomy for hospitals (fylkeskommunale sykehusselskaper), [61]

2001: *Patients Right Act*, including free choice of hospital

2001: *List system for general practitioners*. Citizen's right to choose another physician as their general practitioner twice a year – and the right to a second opinion by another general practitioner

2002: January 1 *the responsibilities for hospitals* was taken away from the counties and handed over to 5 regional boards with 'professional' boards, see separate section.

2002: February 1 an *expert committee* shall look into *the financing of hospitals*. A report should be delivered at the end of the year. Among other things the proposed financing schemes should take into consideration the government's desire for a provider-purchaser split.

Several recurring themes recurring themes can be seen since at least 1987.

The question of the central vs. decentral responsibility for the hospitals has been discussed for at least 15 years. In the 1987 White Paper (NOU 1987: 25) the majority of the members recommended the county level. A similar result emerged as the result of the 1996 White Paper (NOU 1996: 5). And the 1999 White Paper (NOU 1999: ?+) recommended changes in the organizational status of hospitals (public authorities vs. separate legal business entities with similarities to private companies) and took no clear stand on the state-county issue.

- changes in Finland⁵⁵

20 hospital districts, 455 municipalities, 75% with less than 10,000 inhabitants. Regional level is much weaker than in the other Scandinavian countries, e.g. no county-level with directly elected politicians.

1950ies and 60ies: Gradual transfer of *responsibility for hospitals from the state to the municipalities.*

1964: Introduction of *the National Health Insurance* scheme financed by a payroll tax with contributions from employers and employees. Benefits provided are sickness and maternity benefits, payment for physician services outside hospitals, reimbursement for drugs etc..

1972: The 1972 *Primary Health Care Act* states that the municipalities have to provide primary medical care, health counselling, child and maternity care, school care, transportation of patients, screening and dental care for children and young adults. These services shall be provided by health centres. Municipalities can also buy the obligatory services

1978/79: *Occupational Health Act* requiring employers to provide occupational health services for their employees, and employers may voluntarily provide other health services. Large companies set up their own ambulatory health care units, while others contract with private providers. The National Health Insurance reimburses employers 50% of the necessary and appropriate costs

80ies: *'Personal doctor'* system introduced within the health centres

1984: *State Subsidy Act* – equalized subsidies for the various social and health services

Late 80ies and onward: *managerial reforms at hospitals*

1990ies: *Increasing deregulation* and emphasis on municipal autonomy. Reforms in the state administration of health care, e.g. less formal planning and approval activities.

1991: The *1991 Hospital Act and the 1991 Mental Health Act* regulate the organization of these services. For the organization of specialised care, the country is divided into *21 Hospital Districts* and the Helsinki University Hospital. Today (2002) 20 districts and the Helsinki University Hospital has become part of a district. The task of a Hospital District is to provide and coordinate the public hospital care within its area. One Hospital District usually comprises 1-3 acute hospitals and 1-2 psychiatric hospitals. Both inpatient care and outpatient care are provided in these hospitals. Each municipality must be a member of a Hospital District and hospital district thus is a 'municipal hospital federation'. Each district has a board. Board members are elected by the municipalities. Municipalities are free to decide where to purchase specialised medical care. They can purchase it either from their own Hospital District, another Hospital District or the private sector.

The hospital districts are also responsible for prevention. Not all the hospital districts are particularly keen on preventive work, because its output cannot be measured in the same way as care-giving services. It is also impossible to specify how much a single municipality benefits

⁵⁵ Based on a number of sources, the most important are: [107,111,112]

1993: *State subsidy reform.* Prior to the reform subsidies were given directly to hospitals. Before 1993, state subsidies were allocated retrospectively according to the actual costs. In 1993, the state subsidy system was reformed. Under the present system, state subsidies are calculated according to demographic criteria. In health care, the criteria are the population's age structure, morbidity, population density and land area. The subsidy is not earmarked and it is automatically paid to the municipalities without their having to apply for it. The state also subsidises capital investments in health care. -The system of calculating the subsidies as well as the criteria were changed in 1997, the present criteria being number of inhabitants, age structure and morbidity. There are also add-ons for remote-area and archipelago municipalities.

1993: *The Act on the Status and Rights of Patients*

1996: *Waiting list guarantees:* Some local projects are being carried out in health services in Finland. Experiments with a waiting time guarantee (for elective procedures) are planned for three Hospital Districts in 1996. The waiting time will concern both primary and secondary care, the objective being that a patient should have access to a health centre doctor within three days and to a specialist at a hospital within 1 to 2 weeks. However, in the planned projects, the maximum waiting times will probably vary between the experimenting districts. If the patient does not have access to care within the defined maximum time, he/she will be offered treatment at another health centre or hospital.

2001/2002: Changes in the *health care investment system* are planned to take place. From 2002, the state subsidy paid for capital investments will be reduced to 25% of the cost of capital investment. However, during a transition period from 2002–2003, medium-sized investments (Fmk 2–25 million) will still be subsidized 25–50 % of the investment costs, as has been done so far. It is planned that the state subsidy system for capital investments will gradually be directed more towards developing activities and improving professional skills. Investments alone will be supported in exceptional cases

2002 – April – government white paper outlines a number of plans and proposals. See www.vn.fi/stm/svenska/nytt/halso_fr.htm - accessed May 9, 2002, [77]. It is the result of a work on possible reforms initiated in the autumn of 2001. - Before 2003 a *waiting list/time guarantee* will be developed and should become law before 2005. Separate (state) funds will be allocated depending on the results of further analysis of the area.. – Gradual increase in state subsidies to municipalities, starting in 2003 with about 100 million Euros and to increase further subject to the municipalities and hospital districts implement the proposals in the white paper..

- changes in Sweden⁵⁶

18 counties, 3 regions (merged counties), 288 municipalities

1946, 1955: *National Health Insurance Act* passed by parliament in 1946, but not implemented until 1955, mainly to the desire to reach consensus, in particular from physicians. Basically this means that Sickness Funds were abolished in 1955. Benefits in the NHI typically comprised those offered by the Sickness Insurance Funds, e.g. sickness benefits, GP visits, medicine. - Administered by 'Rigsforsikringsverket'. Is mainly financed by employers' contribution (payroll tax), today about 8.5% of the pay per employee.

⁵⁶ Some of the more important sources have been [113,107]

1969: *Local government reform.* By 1974 the 2498 municipalities should be reduced to 284.

1970: *'Seven Crown reform'* – lower user payment for GP-visits (user payment still exists today).

1970: *GPs become salaried employees.* In reality no private element left in the Swedish health care system. Part of the Seven Crown Reform

1982: *The Health Care Act (Hälso-och Sjukvårdslagen)* formally placing most of the responsibility for operating, planning and financing of health care at the county level, including preventive care and health promotion. Basically the law unified the development during the 60ies and 70ies.

1980ies: Large scale decentralization – counties take over health care.

1985: *Dagmar-reform.* Per capita based 'block' grant to primary care directly to the counties instead as ear-marked 'fee-for-service' like reimbursement from the Health Insurance (Rigsforsikringsverket), i.e. in reality a unification of county financing. - The term 'Dagmar-negotiations' (Dagmaröverenskommelse) now refer to annual negotiations between central government and the counties about ear-marked state subsidies, in part coming from the health insurance.

1988: *Six planning regions* for tertiary hospital care (highly specialized) formed for the counties

1990-1996: *'Market orientation'* in several counties (Sörmland, Jämtland, Dalarna, Bohus og Stockholm). Elements: provider-purchaser split, activity (DRG) based reimbursement, *patient choice*. Applied differently, e.g. often health districts within the counties became purchasing bodies, and with different weight.

1992: *Provider-Purchaser split* and *DRG-based reimbursement* introduced in Stockholm County (with 1.7 million inhabitants) -much written in the scientific journals about this particular model.

1992: Responsibility for *nursing homes* and home health care transferred from counties to *municipalities* – the so-called Ädel-reform

1992: *Waiting list guarantee* within 3 months for 12 (10) diagnoses/procedures. Various initiatives by individual counties had be introduced already starting 1987. In 1992 additional funds for the initiative were allocated.

1992: *A government commission on financing and organization of health care* (Kommittén om hälso-och sjukvårdnes finansiering och orgnaisaiton – HSU 2000) is established. Delivers final report in 1999, some of the reports are [78,79,80]. The mandate for the work was changed in 1994 with the new social democratic government along with a change in the composition of members. Among other things, the commission should not look at the role of the counties.

1994: *Family doctor/personal doctor Act.* Patients choose to be on the list of a GP (doctor in a health centre), GPs to opt out and start their own practice receiving per capita (70%) and fee-for-service reimbursement. Set in motion a privatisation of the GP sector.

1995-96: *Family Doctor Act repealed* by the new social democratic government

1996: The old state system for *grants to counties* unified (tax equalization and various earmarked subsidies are pooled – basically creating a unified, objective block-grant system)

1997: Change of *the waiting list guarantee* – changed focus/approach compared to 1992, e.g. if referred to specialist care, e.g. hospital, a first appointment must take place within three months, one month is diagnosis is uncertain.

1998: Counties begin to take over *the economic responsibility for medicine* (from the health insurance (Rigsforsikringsverket). New system for *subsidizing patients* (drug benefit scheme) introduced at the same time.

1999: *Patients' Right Reform* –(as changes to 1982 Health Care Act) increased obligations for county councils regarding patients' rights in the health care system, e.g. right to choose primary care physician, right to obtain second opinion, right to information etc..

2001: In April the State and the Federation of County Councils agreed that for 2002-2004 about 3.8 billion Skr should be allocated to the county councils to *combat waiting lists*.