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COMMENTARY

Health system design and performance: What can other countries learn from the Nordic experience?

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Abstract: Nordic health systems are amongst the strongest in the developed world. This paper discusses their strengths and lessons for other health systems under five headings: sources of finance, provider payment, organization, regulation, and persuasion. It attributes the good performance of Nordic systems to good governance of the institutions of health care, the behaviour and attitude of citizens, and high levels of cooperation in Nordic countries. The paper notes that there is only modest use of competition or payment incentives in the provider market. It suggests that improving information on the performance of providers and other institutions is an important priority for the future.

JEL classification: I1, I18

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Introduction

The papers included in this special issue offer an excellent and wide-ranging economic assessment of the strengths and weaknesses of Nordic health systems. The general picture that emerges is that the Nordic people are very well served by their health systems, which would by most criteria be ranked amongst the strongest performing in the developed world. This is not to deny that– in common with all systems – there remain enormous opportunities for improvement, and immense challenges ahead. Moreover, within the Nordic systems, there are interesting anomalies and variations that offer scope for economic insights and potential for future research, particularly for those studying the optimal design and operation of health systems.

The notion of the health 'system' has become much discussed since the World Health Organization published its *World Health Report 2000*, which defined it as "all the activities whose primary purpose is to promote, restore or maintain health" (World Health Organization, 2000). The WHO (2007) further clarified the definition to "encompass both personal and population services, as well as activities to influence the policies and actions of other sectors to address the social, environmental and economic determinants of health".

As Smith and Yip (2016) explain, the reasons for needing to think of the health sector as a system are the immensely complex processes involved in producing improved health, and the countless market failures that arise when seeking to deliver health services. This gives rise to a profound need to take policy action in order to protect citizens (both financially and medically), avoid inefficient allocation of resources, reduce inefficiency in

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production, assure appropriate supply of labour and other resources, overcome information gaps, and promote society's equity objectives.

There are numerous domains for policy action. However, Roberts *et al* (2008) collapse these into five broad areas: the sources of health system finance; the mechanisms used to pay providers; the organization of insurance and provider markets; the regulation of those markets; and the 'persuasion' of individuals and actors outside the health sector to help promote health objectives. In this short commentary I offer some personal impressions of the extent to which – based on the papers presented in this special issue - the Nordic experience offers insights of value to policymakers worldwide seeking to improve the performance of their health systems.

As a prelude to that analysis it is worth dwelling briefly on the goals that society might hold in respect of its health system (Papanicolas and Smith, 2013). These are likely to include:

- improving the health of the population, expressed in both length and quality of life;
- protecting people from the financial consequences of ill-health, most immediately the direct costs of securing access to medical services, but possibly also the indirect costs of lost earnings for patients or their caregivers;
- promoting the responsiveness of the health services, expressed in terms of waiting times and other non-medical determinants of user satisfaction;
- promoting associated equity objectives;
- minimizing inefficiency in the use of resources.

There also is increasing interest in the role of the health system in promoting (or inhibiting) development in other sectors of the economy (McKee and Figueras, 2011). However, I do not consider these broader objectives here, and instead focus on extent to which Nordic health systems are contributing to the conventional set of policy objectives set out above.

In considering these health system goals, it is important to bear in mind that – although designed eventually to promote these goals – many policy interventions are directed at more instrumental objectives, such as changing provider behaviour, correcting information asymmetries and accounting for externalities. In the following sections I seek to summarize the policy lessons from the Nordic experience under the five broad category of policy action set out by Roberts *at al*.

1 Sources of finance

Lyttkens and colleagues (2016) show that the Nordic countries spend substantially less on health services than a persuasively selected Five Country Comparison (FCC) group of OECD countries. Furthermore, Nordic countries rely to a much greater extent than the FCC countries, and OECD countries as a whole, on general government taxation as a source of revenue. This is achieved without major apparent damage to the medical outcomes of the health system – indeed in the case of infant mortality, four of the five Nordic countries secure amongst the best results from anywhere in the world.

Moreover, Alexandersen and colleagues (2016) note that user fees are low in the Nordic countries. This has led to generally universal levels of equal access to health services for those in equal need, a fundamental equity goal for many health systems. Evidence from the Commonwealth Fund survey of the general public corroborates that patients in Norway and Sweden are rarely deterred from use of health services by financial barriers (Schoen et al., 2013). One slight caution however is that – at least in the past – Finland appears to have

had a significantly pro-rich bias in access for both general practitioner and secondary care (van Doorslaer and Van Ourti, 2011),

There is also some evidence that patients in Nordic countries experience longer waits for non-urgent treatment than their counterparts in many other OECD countries. Comparable data are scarce, but the Commonwealth Fund suggests that both Norway and Sweden have comparatively long waiting times for GP access and some hospital care (Schoen et al., 2013). In contrast, analysis of administrative data suggests that Denmark patients enjoy short waits for some common hospital procedures (Siciliani, Moran and Borowitz, 2014).

These glimpses of user charges and waiting times are cited by Alexandersen and colleagues (2016) as an important reason for the rising recourse to voluntary complementary and duplicate health insurance in the Nordic countries. The use of complementary voluntary health insurance (VHI) to cover user fees is likely to negate the policy intention of deterring unnecessary use of health services. The user fees might instead lead to increased inequity, as poorer and sicker people may be unable to take out VHI. The use of duplicate VHI suggests that richer people may perceive that the quality of publicly funded services is inadequate, so far as waiting time is concerned. This in turn might lead to a risk that those who adopt VHI may begin to question the value of a socially funded health service.

In many respects, the Nordic countries approach towards funding can nevertheless act as a model of simplicity and effectiveness for middle and low income countries seeking to make the transition towards universal health coverage. Their experience tends to support evidence from elsewhere that the use of general taxation is an efficient means of funding health services, probably economizing on transaction costs and information needs relative to the use of more diverse sources (Wagstaff and Moreno-Serra, 2009). However, the use of general taxation does pose a risk, in that the health budget must compete annually with other public services for political priority, and so the budget is vulnerable when sources of taxation come under pressure. The rise of VHI is a signal that there may be limits to the willingness of some Nordic countries to fund the comprehensive package of health care enjoyed in the past.

Here the advice for other countries may diverge somewhat from how the Nordic countries (in common with many other high income countries) have so far sought to restrain demand, using somewhat arbitrary and inequitable rationing devices such as waiting times or user fees. A more rational (though perhaps less politically attractive) approach would be to set an explicit health benefits package that the country can afford, given the limits to taxation and political preferences (Glassman et al., 2016). This approach seeks to ensure that the health benefits of the publicly funded system are maximized, and that equity goals are respected.

2 Provider payment

There has been considerable debate in the health economics literature about the optimal payment mechanism for health care organizations and individual practitioners. Lyttkens *et al* (2016) report that the dominant system of reimbursement for Nordic doctors in secondary care is as salaried employees, while in the primary care sector Olsen *et al* (2016) show that the picture is more mixed. The good outcomes and productivity secured by Nordic systems in secondary care (and the general lack of pay-for-performance schemes) suggest that a lack of explicit incentives to address quality is not necessarily a barrier to securing high levels of performance.

Lyttkens *et al* ascribe this outcome to the high levels of 'trust' found in Nordic societies in general, and between patients and doctors in particular. A crucial element of any

model of organizational or individual motivation is the utility function of the agent, and the extent to which that agent's values coincide with those of the principal. The key question prompted by the Nordic experience is whether the utility functions of doctors working in their health systems are malleable, in the sense of being influenced by the dominant medical culture. If so: is that experience transferrable to other settings? These are questions that economists are not well equipped to answer, but they do have profound implications for the standard models of principal and agent on which much economic policy advice relies.

The reliance on trust and professional standards can in principle be seen as a highly effective way of minimizing agency costs. The strong profile of professional networks in Nordic countries, dedicated to maintenance of professional quality, are a signal of some of the instruments that can facilitate professional trust. Furthermore the examples of inter-jurisdictional sharing, such as the spread of cancer care pathways cited by Iversen *et al* (2016), suggest that peer competition can act as a powerful motivation for quality improvement.

3 Organization

On the supply side, the organization of the five health systems is broadly similar, comprising a comprehensive primary care sector, and a secondary care sector that is largely publicly owned, relying only occasionally on private providers. The geography and culture of the countries means that there is little scope for widespread use of market competition as a supply side discipline, although Olsen *et al* (2016) refer to a growth of experimentation in primary care. The main concern in the secondary sector is that the lack of competitive pressure may contribute to the high waiting times for non-urgent care seen in some countries. The Nordic experience nevertheless suggests that high levels of clinical performance can be secured without major recourse to competitive markets. A key question is the extent to which other arrangements, such as professional leadership, clinical guidelines, performance reporting and peer review, compensate for the lack of market incentives.

In the hospital sector, the commonalities in data collection and system definitions has offered some potential for inter-jurisdictional comparison, for example in the EuroHOPE project (Häkkinen et al., 2015). This offered insights into performance variation between Nordic hospitals, and a next step may be to explore the reasons for such variation. The generally good collaborative relationships amongst Nordic countries offers a model for securing better understanding and standardization within broader groupings of countries, such as the European Union and OECD, as an essential step towards effective use of 'yardstick' competition between comparable entities nationally and internationally.

There are large variations in the organization and responsibilities of primary care, both between and within countries, which offer interesting scope for comparison and evaluation (Olsen et al., 2016). To a large extent these opportunities have not yet been exploited, possibly because of the widespread lack of good performance data. Addressing this information weakness – which is found in many other health systems – would seem to be a high priority, with the primary benefit of improving patient care, but also providing a valuable resource for enhancing the design and efficiency of primary care. In particular, the paper by Iversen *et al* (2016) suggests that it will not be possible to address the challenges of care integration without better linked patient data and a fuller understanding of the costs and effectiveness of alternative organizational design in primary care.

On the demand side, there are quite large variations in the organization of strategic purchasing arrangements, with high degrees of centralized control in Denmark and Norway, and some highly decentralized arrangements in Finland and Sweden. In common with

experience in the UK and elsewhere, there is little evidence to suggest the superiority of any one organizational form for strategic purchasing. Instead, it seems more likely that the important requirements are good information, good management, and good governance of the purchasing and procurement function, whatever the chosen institutional arrangements. The general high level of managerial competence found in all sectors of Nordic economies is likely to have made an important contribution to the (comparatively) good functioning of the health care purchasing institutions.

4 Regulation

There is a general presumption that any health system requires careful attention to the design of regulatory instruments to correct for market failures and promote equity objectives. Regulation might take the form of *ex ante* actions, such as accreditation of health sector professionals, the promulgation of clinical guidelines, requirement for minimum staffing levels and other resource constraints, and creation of a health benefits package, stating what interventions may (and may not) be funded from public funds. *Ex post* regulation may include various forms of performance reporting, clinical audit, and checks on the probity and efficiency of provider organizations.

The general picture that emerges form the papers in this volume is that the high levels of trust that exist in Nordic culture have meant that health systems have felt able to economize on many aspects of regulation, particularly those that relate to professional conduct. There are many reasons to believe that this approach has been justified, and may even have encouraged effective methods of self-regulation to flourish, particularly in the secondary care sector.

However, outside the hospital, the discussions of primary care (Olsen et al., 2016) and coordinated care (Iversen et al., 2016) suggest (with some notable exceptions) a general failure to promulgate clear strategies and a shortage of comparable data. Furthermore, there is also evidence that the difficult borderline between health and social care is not always being successfully addressed, leading for example to delayed discharges of medically fit patients. Unless addressed, these weaknesses may compromise efforts to address the future challenges of ageing and multiple morbidity. There are promising signs described by Iversen *et al* (2016) that clinical professionals in Nordic countries may be starting to fill the regulatory vacuum by designing and sharing integrated clinical 'pathways' for chronic disease. It will be important that such pathways are designed with economic as well as clinical criteria in mind.

A fundamental requirement for any regulatory function is the availability of timely, reliable and comparable data on the performance of the regulated entities. These should be prepared and disseminated in a variety of formats for the diverse stakeholders, such as prospective patients, clinical professionals, purchaser organizations, governments and taxpayers. Given the (comparative) richness of Nordic data sources, it is surprising that more emphasis has not hitherto been placed on this important aspect of regulation.

5 Persuasion

As shown by Ásgeirsdóttir and Gerdtham (2016), with a few exceptions, the health-related behaviour of Nordic citizens is generally favourable compared to many other high-income countries. This is a major determinant of the longevity and good health status found in the Nordic countries. Furthermore, there is evidence of strong recognition of the importance of embedding health objectives in all areas of government, as for example shown in the 'health in all policies' efforts led by Finland (Leppo et al., 2013).

Furthermore, Ásgeirsdóttir and Gerdtham indicate that the comparative use of health care resources is in many respects modest relative to other OECD countries. They put forward an interesting hypothesis that these characteristics are to some extent a consequences of the idea of social responsibility embedded in Nordic culture, which may encourage citizens to restrain questionable use of health services. Of course this leads to the research question of the extent to which this apparent restraint leads to an efficient outcome, in the sense of reducing use of services that are medically questionable or not cost-effective. However, it is difficult to find *prima facie* evidence that – in aggregate – it is having a major detrimental effect on outcomes.

The Nordic experience suggests that 'persuasion' of citizens to adopt healthy behaviour and make frugal use of health services may be a subtle process that requires attention to broad societal culture. In translating the Nordic success to other systems, therefore, the conventional approach of behavioural economics – to address the perceptions and responses of individual citizens – may be misplaced. Rather, the interesting question is whether there are mechanisms for affecting societal attitudes towards health-related behaviour. In this respect, there have been some notable successes worldwide in changing attitudes towards certain public health policy concerns, such as use of car seat belts, drink-driving and passive smoking (McKee and Mackenbach, 2013). Can these successes be translated into equivalent changes in attitudes towards use of health services?

Concluding comments

The Nordic experience offers numerous intriguing messages for other high income countries, and for lower income countries making the transition towards universal health coverage. The papers in this volume indicate that Nordic health systems perform strongly, for the benefit of their citizens, but that there remain numerous unresolved challenges.

The paragraphs above offer a personal impression from an economic perspective of the key messages that emerge for health policy. First, the Nordic countries reinforce the importance of good professional and institutional governance at every level of the system. As well as ensuring that agents 'do what they are expected to do', good governance is also associated with high levels of trust, and therefore economizes on transaction and regulatory costs. Second, the efficiency of health systems relies importantly on the behaviour and attitudes of citizens, and in this respect there appear to be useful general lessons about how aspects of the generally favourable culture found in the Nordic countries can be translated elsewhere. Third, there are some interesting developments in Nordic countries relating to coordination of care for patients with long term conditions. This is a crucial policy issue for many health systems, and experiments in the Nordic countries may yield evidence of general applicability.

Fourth, there are certain policy instruments that Nordic health systems have not relied on extensively, such as market competition and provider 'pay for performance'. Would Nordic systems perform even more strongly by paying more attention to these instruments, or is it the case that they have little bearing on health system performance, or are they simply unnecessary given the other characteristics of the Nordic health systems? Likewise, there is little in this volume about the future supply and organization of clinical professionals, on which all health systems will crucially rely. Is this (in common with many other European systems) a policy lacuna, or are there strong reasons for giving it low policy priority?

Finally, as this volume indicates, there is a tradition of strong economic scholarship in Nordic countries that has sought to draw general policy inferences from the experiments and variations in the health systems. This has led to important findings, for the benefit of all

health systems. However, in common with many other countries, the capacity of researchers to answer important policy questions has been to some extent frustrated by lack of data, failure to standardize data, and weak implementation of reforms that fails to recognize the imperative to learn from experimentation. Embedding the need for evaluation into all reforms is important in all health systems, ultimately because it protects the interests of patients and taxpayers. But it would be particularly fruitful in the Nordic countries, which have a strong research capacity.

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