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EDITORIAL

Modeling European health systems: a theoretical exercise

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Introduction

The health system is a milestone for all developed nations, and its management is also a matter of economics and business administration because of the costs induced by services delivered. Consequently, health care has always been a highly debated subject in politics, open to ideologies in every nation.

Here, we try to put order in the endless debate on health care from the policy point of view. The final goal of our effort is to conceptualize a model of health system for the European countries, supported by a few but solid theoretical principles and rules of the game.

The confounding concepts of demand and supply

Health economics teaches us that the positive effects induced by competition in free markets cannot be expected in health care by definition [1] since health is a classic example of market failure from both demand and supply. That is why health is classified in economics as a 'merit good' rather than a 'consumer good' [2]. In light of the insurmountable hurdles against market competition, prices cannot come from naturally matching demand and supply in health care. Even though prices are fixed ex ante—as it happens in many European countries for hospital admissions through tariffs based on diagnosis derived from the American DRGs [3]—setting prices artificially is an arbitrary exercise, which necessarily leads to financial distortions and irrational allocation of resources in the long run [4]. More, by requiring a periodic update of the tariffs values and a systematic audit on how healthcare providers use them, fee-for-service systems substantially increase administrative costs as a negative effect.

The appropriate concepts of funding and provision

Once market competition is ruled out, the most reasonable concepts to reference for managing a health system are funding and provision. While the rational solution for the former is quite easy to find out, the latter requires a deeper understanding.

The most logical criterion to apply for funding a health system is universal coverage through general taxation. Being able to spread the total risks on the whole population, the State is the best insurer to cover the illness risks of its citizens. Thus, public systems should be privileged for funding [1].

Health care provision is offered by a mix of public and private bodies in most European countries. The discipline to refer for managing health care organizations is business administration and its key concepts of planning and budgeting can be applied to any kind of employer, public administration included, aiming at enhancing efficiency. While it is pretty obvious to opt for a public health system for funding, the choice between public and private sector for providing health care is less straightforward. In principle, a private company must make profit or cover costs at worst. Therefore, it is not surprising if, for example, private hospitals usually focus on the most profitable or least costly treatments to increase their revenues [5], and often decline treatments for costlier patients or discharge them earlier to minimize resource consumption [6]. On the other hand, it is fair to recognize that public organizations are usually prone to strong political pressure in taking their decisions and slowed down in their administrative procedures by the stiff bureaucracy that usually permeates the public sector [7].

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An opportunity for integrated care

Integrated care (IC) is a sound concept that emerged in the literature at the beginning of the new millennium and has undoubtedly laudable aims for people [8]. Struggling against the widespread fragmentation of services provided, IC implies a systemic collaboration among all professionals and organizations involved in health services.

IC is the modern approach that better supports the choice in favor of the public sector for health care provision. In fact, the existence of multiple (public and/or private) providers strongly discourages integration [9], since any player is obviously orientated to follow its own financial interests in the long run. Therefore, IC is certainly favored by a (necessarily public) single employer [10]. More, the increasing plea for IC reflects the growing need induced by chronic diseases of aging and multi-morbid patients living in community, the major challenge for the European health systems at present.

The threat of dual practice

Dual practice (DP) is the combination of both public and private practices, which allows health professionals to increase their own incomes beyond their wages [11]. Historically diffused in all the Western European countries [12], DP is a major threat for health care employers since it inevitably raises financial conflicts of interest for their employees. Indeed, any form of DP legally allowed in a health system can only mix up business and medical ethics [13]. The ban of DP is strongly supported by business administration [14]. In fact, it would be very strange for an employer to allow its employees to work contemporarily for other competitors, and even stranger to allow them to make private business with its clients in their free time. Last but not least, an almost paradoxical form of DP is when public employers directly provide private activity in their healthcare facilities (e.g., the so called *intra moenia* activity in Italian hospitals) [15]. Such an extreme form of DP has been associated to the ethical concept of institutional corruption [16], potentially thwarting the ability of public organizations to achieve their primary goals.

Model of institutional framework

In light of this theoretical exercise, we are convinced that a public National Health Service (NHS) should be the most indicated model for funding and providing health care services in modern European societies [17], and all the NHS health professionals should be employees for managing their activity more effectively. As to the private sector, of course it can exist in healthcare, like in any other domain, probably exploiting the requests of wealthier citizens. We just argue that private and public actors can co-exist in health care, but separately, without any legally allowed overlap.

If a public NHS should be recommended as a blueprint for any European country after having analyzed the main theoretical pros and cons, however the experience of the existing NHSs in Europe has undeniably raised the abovementioned concerns of political influence and administrative bureaucracy as the major issues to tackle.

The concerns of political influence and administrative bureaucracy

Democracy necessarily entails the potential impact of political governments on health through policies and laws that can be influenced by dominant ideologies. So, alternate governments of opposite parties can inject inconsistent changes in the health systems, which may be occasionally radical, deeply altering their functioning in the long run as a consequence. A classic example of national reform inducing dramatic changes was the inclusion in late nineties of the 'internal market' in the English NHS by splitting health authorities into 'purchasers' and 'providers' so as to foster competition among the latter [18]. Also, when local governments enjoy institutional autonomy, their political influence can undermine the domestic consistency of a health system. This happened to a limited extent in the UK NHS due to the four nations (e.g., England and Scotland) and to a larger extent in the Italian NHS (INHS) owing to the twenty regions (e.g., Lombardy, Piedmont, Sicily and Tuscany) [19]. In Italy, financial autonomy has allowed regionally elected politicians to develop substantially different health strategies in the INHS without any national endorsement. When the cost item of health represents by far the major share of regional budgets (like in the INHS), health necessarily becomes a major topic for local elections [20]. Ultimately, this devolution can gradually transform a public NHS into several uneven local ones within the same nation, undermining its central governance in the long run.

Bureaucracy had a laudable goal in its original form, aiming at clearly delimiting administrative responsibilities and tasks in large-scale organizations [21]. Ruling out any influence of personal relationships by standardizing functioning rules, administrative bureaucracy was to be the most rational system for managing organizations efficiently [22]. However, bureaucracy has increasingly become a negative term in the last decades [23], especially in the field of public administration. Nowadays bureaucracy is associated with unnecessary administrative activities, which mainly penalize health professionals who work hard for patients and do

not fully respect bureaucratic rules [24, 25]. Paradoxically, bureaucracy is even prone to individuals' financial conflicts of interest, which are ubiquitous in medicine [26]. In fact, bureaucracy merely requires the disclosure of conflicts as a barrier to prevent them. A well-known example is the sponsorship by pharmaceutical industry of scientific congresses approved for continuous medical education [27]. To give a rough idea of the size of potential conflicts in Italy, the INHS has recently recorded 411 associations and scientific societies of health professionals [28].

Proposals for limiting the two concerns

Finally, we figure out a tentative list of synergic rules aimed at constraining the negative effects of political influence and administrative bureaucracy on our model of NHS.

- Political governments should not be allowed to easily modify the baseline institutional framework of the NHS. Therefore, laws concerning health policy and economics should be submitted to a form of 'safeguard clause' (e.g., to be approved by a two-third majority at least) [19]. More, employers and citizens subscribing additional health insurance schemes should not benefit from any tax discount, in order to avoid financial distortions undermining the NHS funding.
- The NHS total budget should be anchored to the gross domestic product so as to ensure its consistency over time. Then, the national budget should be allocated at the local level through clear-cut formulas mainly based on local populations, and its planning and control managed only centrally. The geographic borders of the NHS local tiers should be rationally designed to discourage the cross-boundary flow of patients within the country and not necessarily coincide with the borders of local jurisdictions.
- The wages of the main types of NHS health professionals should be generous enough for living in civilized societies once banned any form of DP. Domestic salaries should be anchored to a common parameter (e.g., the national average income per employee) throughout Europe, in order to discourage the movement of health professionals across national borders merely for financial advantages. More, the NHS should formally indemnify its health professionals for legal expenses in case of lawsuits for medical negligence [29].
- Post-graduate education should be mandatory for top managers appointed in the NHS, in order to guarantee specific management skills in the healthcare field, and this education could be provided by a national school of health [18]. Managers should foster collaborative rather than competitive relationships between health professionals, encouraging their job rotation among health care services to enhance IC inside their organizations.
- The NHS procurement of goods should be distinguished between health and common goods. Since the former cannot be traced back to the rules of free markets, their purchasing strategies should switch from irrational pricing to rational budgeting [30]. Once decided which products are eligible for reimbursement according to their efficacy only, national authorities could reimburse private industry for the volumes prescribed during the year through standardized unit costs. This should help to control pharmaceutical expenses, which have become untenable in wealthier European countries too [31].
- The domestic number of scientific societies and associations of health professionals should be drastically reduced by allowing the NHS employees to inscribe only at the national associations of their profession. Rather than residential events, internal meetings inside work facilities (e.g., clinical clubs) and exchange schemes between professionals of different levels of care (e.g., community and hospitals) should be privileged to fulfill continuous education required to health professionals [26].

To conclude, we are confident that the negative effects of the most serious motivation-killing threats of public systems on our virtual NHS could be constrained by introducing these clear-cut rules of the game. In particular, safeguard clauses to restrict the meddling by politicians on the matter of health policy and the introduction of a national school for mandatorily educating the NHS potential managers should help to constrain the influence of politics at all tiers in our virtual NHS. In addition, the adoption of reasonable strategies within market failure for purchasing health goods and a drastic reduction of professional lobbies inside our NHS model should help mitigate administrative bureaucracy, and hopefully potential corruption too.

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