

Paola Adinolfi · Elio Borgonovi *Editors*

The Myths of Health Care

Towards New Models of Leadership and
Management in the Healthcare Sector

Foreword by Henry Mintzberg

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To Graziano, Stefano and Matteo

To Mattia, Milo and Bianca

*Wishing that they could live in a healthy and
peaceful society*

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Chapter 4

Myth #1: The Healthcare System Is Failing

**Umberto Veronesi, Maurizio Mauri, Mario Del Vecchio,
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4.1 Healthcare Systems: Utopia?

Umberto Veronesi and Maurizio Mauri

4.1.1 Innovative Trends in Health care

Many people say that Healthcare Systems are not financially sustainable and so they are all ultimately doomed.

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The reason for the increase in spending is largely due to modern advances in medicine and technology: innovation has opened up new possibilities in health care but has also increased costs to the point that the system is at risk of collapse.

We do not share this pessimistic view, because we think it is important to take the benefits of the enormous progress made in health care into consideration and not just the dynamics of its cost.

Over the last 30 years, we have witnessed some major changes in diseases afflicting human health, including the eradication of smallpox, the sharp decline in polio and tuberculosis, the drastic reduction in HIV death rates, and the continuing increase in the number of patients winning their battle against cancer.

Generally speaking, there has been a remarkable increase in life expectancy thanks to improvements in economic and social conditions, as well as advances made in health care. These changes were made possible by the revolution in the equipment used for diagnosis and therapy and the restructuring of research and healthcare facilities.

There is no question that the latest therapies that are available for treating cancer, hepatitis, retinopathies and many other conditions, are very expensive but they have also given rise to some extraordinary improvements in human health, such as:

- vaccinations, enabling us to wipe out smallpox and polio and resulting in cures for many patients;
- proton pump inhibitors, used to cure ulcers and gastric conditions, avoiding the need for surgery, once commonplace, and resulting in fewer cases of stomach cancer;
- surgical radiology, such as hemodynamic therapy, frequently used instead of heart surgery to correct heart conditions with small stents;
- antiviral drugs, enabling us to control AIDS and avoiding the need for extremely expensive hospital admissions;
- psychiatric drugs that have made it possible to close mental asylums;
- new imaging techniques (CT, MR, PET, ECO, etc.) that have made the human body transparent and have eliminated the need for the formerly common practice of “exploratory laparotomy”.

These innovations have all led to today’s upward trend in spending, but they have also given us huge improvements in terms of the costs/benefits (in terms of health) equation.

What’s more, if we expand our outlook to the future, there can be no discussion as to the extraordinary innovations we are witnessing today at all levels: scientific, technological, financial, demographic, epidemiological, institutional, cultural, social and political. Just consider four revolutions, which we can recap as: new findings in the post-genomics era, biomedical technology, information technology (ICT), and the patient centrality ethic.

As far as the first revolution is concerned, it is worth pointing out the scientific discoveries brought to us by genome research, such as transgenic plants, modified animals, cloning, etc. In medicine, the deciphering of the human genome, whose

sequencing was completed in 2001, generated fundamental knowledge for our understanding of degenerative diseases that are the greatest ailment affecting human health today. Finding a solution to the majority of health problems is left to the skillful application in clinical practice of the findings of research, especially genetic and epigenetic research, and their adaptation to individual cases/patients.

Today, it is already possible in many cases to identify the genetic and molecular mechanisms causing diseases, to predict the probability (predictive medicine) of being affected by a disease and to safeguard human health before a condition occurs. Therapies can be “customised” for individual patients (healthy or not) predicting, for example, a person’s response to drugs and implementing precision medicine. Some studies estimate that new discoveries over the next 10 years will change more than 80% of what we know now, the methods we use for diagnosis and treatments, but most of all will have an impact on prevention and lead to a radical rethinking of how we approach clinical practice.

With regard to the revolution in biomedical technology, methods of functional or molecular imaging are being developed in addition to the morphological imaging technology of recent years. We will see the consolidation of a new, conservative approach to surgery based on the shift away from the principle of what is the “maximum tolerable (in terms of being invasive)” to what is the “minimum needed”. This is also thanks to the development of new techniques in surgery, the use of robots, new types of advanced radiotherapy that are less harmful to the surrounding healthy tissue, for example using particles such as protons or ions, or focused ultrasound.

Nanotechnology, modern pharmacology, biological therapies and regenerative medicine are also part of this revolution.

The revolution in the information technology used in health care has given us controllable and reliable systems for managing a mass of information, promoting the balanced development of the procedures used for prevention, diagnosis, treatment and rehabilitation, the integration of different medical professions and continuity of care in different settings (acute hospital admissions, outpatient-based health care in non-hospital facilities, health care delivered at home). IT and related technologies must be centred on the patient and on his needs, so that he becomes the “focus” of the reorganisation of patient care: it will become increasingly possible to take a holistic approach, treating the patient as a whole instead of his organs or his ailments. It will become possible to have an electronic medical record with a person’s complete medical history, useful information on his health, his genome and gradually including information on his epigenome. Bespoke analysis techniques and technologies will also make it possible to process health care-related big data and assess the effectiveness of treatments for homogeneous groups of patients.

The fourth revolution, the ethical revolution, can be described as the “comeback of humanism” where the person is the focus of processes designed to aid prevention, diagnosis, treatment and rehabilitation, balancing the logic of specialisation or hyper-specialisation that has been prominent in recent decades. The patient/public becomes a “stakeholder”, taking an active rather than a passive role in his own health care, so he is no longer merely a receiver of a service but a participant in the

decision-making processes affecting his own health and the health of the community at large. Greater public awareness, changes in regulations and modes of practice (such as privacy standards or the new code of ethics of physicians), have contributed to a Copernican revolution impacting on the fundamental rights of a person/patient that we can sum up as follows: scientifically valid treatment, prompt treatment, second opinion, privacy, knowing the truth about a disease, being informed about therapies, refusing treatment, stating consensus in advance, not suffering, respect, dignity.

4.1.2 A New Paradigm in Health care

Summing up, these revolutions will lead to the emergence of a new paradigm marked by the shift away from the concept of advanced disease to that of “preventive health”. A paradigm of a new medical approach with the following characteristics:

- proactive or taking the initiative, anticipating Healthcare needs in order to provide a more timely and effective response;
- predictive, estimating the probability of developing certain diseases;
- preventive, avoiding an illness or treating it as soon as it first appears for best results, also in terms of quality of life;
- customised, where therapy is “tailor made” to take a person’s physical and psychological situation into consideration;
- participatory, involving and empowering patients in the care processes affecting his health;
- specific, considering the individual variability in a person’s genes, environment and lifestyle.

These trends will shift the focus of attention away from people who are ill to people who are in good health.

The current patient-care model will change and become a model that puts more emphasis on all of the stages prior to the onset of a disease and on new methods and techniques of treatment should a disease be contracted, bringing superior results in terms of effectiveness, efficiency, real and perceived quality and safety. Since these trends are structural, we should ask ourselves whether it is possible to have Healthcare Systems that are effective, fair, efficient, up to date with modern medicine and sustainable in terms of their cost. This is only realistically achievable if we successfully eliminate the main dysfunctions that exist today: questionable political choices, managers without sufficient knowledge or skills to handle the complexity of the system, physicians and other healthcare personnel who often pay scant attention to the actual needs of patients or to ensuring they are treated in an appropriate manner, the uncontrolled increase in the expectations of the general—and not always well-informed—public, endemic corruption in sectors generating

trade and business worth significant amounts. This is by no means prevalent behaviour because positive conduct prevails among many policy makers, managers and other healthcare professionals in the healthcare systems in many countries, who are also motivated, skilled and pay great attention to the needs of patients.

Action needs to be taken in six areas in order to keep Healthcare Systems healthy.

New patient-care models where the focus of health care is shifted away from hospitals to the local area, close to where people actually live, and separating highly complex therapies (carried out at hospital) from prevention, diagnosis and simpler treatment (carried out at other facilities in the local area or at home). This will reduce the number of acute care beds, which will be concentrated at a smaller number of hospitals that have the latest technology and can offer higher levels of patient care. There will be an increase in the number of Healthcare and Welfare Clinics handling diagnosis and treatments, without the need to stay in hospital, and more treatment will be carried out at home with health care personnel working together to safeguard the delivery of healthcare services in and out of hospital. This means that there must be a review of funding criteria, reducing the quota allocated to hospitals and increasing the amount assigned to other services.

Only therapies that have been scientifically proven to be effective will be made available. In order to curb spending, it will be important to avoid using methods, drugs and medical services whose efficacy has not been proven or those which have a higher cost yet have the same degree of efficacy. Some studies estimate that less than 50% of services today have proven benefits. Scientific or clinical knowledge alone is not enough if we are to achieve this goal; instead, physicians and other healthcare professionals must be trained/motivated/induced/encouraged to focus on aspects of management (programmes, time, efficacy, efficiency, quality and costs), i.e. ensuring the procedure and delivery is appropriate and that everything necessary is provided with the exception of anything superfluous. Regulations and tools are also needed in order to cut spending on defensive medicine by putting adequate safeguards in place for physicians and healthcare professionals, and lowering consumerism in health care resulting from misconceptions or the promise of miracle cures made by those exploiting their position of trust.

Introduction and gradual consolidation of the logic of total quality and continuous improvement, remembering that this leads to a reduction in costs and not an increase. It is not uncommon to find that poor quality and unsafe practice has a higher cost in terms of health care and welfare because they lead to complications requiring expensive treatment.

Continuous improvements in quality can be achieved by promoting the following factors: skilled professionals who are competent and up-to-date, boosting their interpersonal skills and empathy by offering them specific and ongoing training; facilities that are innovative and not outdated; an organisation that optimises its available resources, increasing the level of culture and information about health care offered to patients.

The promotion of responsible conduct throughout the system, with regard to the nature of needs, the quality of delivery and services, costs. One aspect of promoting

responsibility concerns appropriate lifestyles for preventing or delaying the manifestation of a disease (primary prevention) and awareness and participation in campaigns promoting early diagnosis (secondary prevention).

In order to achieve this, communication campaigns and testimonials by famous sports—or entertainment personalities should be promoted. Health Care services generating significant positive externalities should be promoted and supported. One example is vaccination, as this not only benefits the person vaccinated but society in general too, since it prevents other people from being infected by contagious diseases.

4.1.3 Concluding Remarks

Innovation of models of organisation that, for a complex system such health care, must pursue excellence in management and achieve the correct use of limited resources compared to the structural expansion of needs and demand. The organisation's strategies and policies, decision-making and executive processes and its administrative procedures, have to be rebuilt starting from the holistic observation of the patient, achieving an interdisciplinary and interprofessional approach, and abandoning traditional methods revolving around the division and specialisation of duties and roles. In this context, innovation should impact both on the organisation within the facility (such as a hospital or local health care authority) and throughout the health care delivery network as a whole, which should distinguish between its role as a provider of services on the one hand and its roles related to funding, programming and the procurement of goods and services (centralised, wherever possible, to achieve economies of scale and specialisation) and control on the other. The delivery network must be based on the integration of public and private facilities, patient care at acute hospitals, local facilities and health care delivered at home, sharing and safeguarding access to information in order to guarantee the best response is offered to meet the patient's needs. It should also include rationalisation, closing or converting small hospitals, whose level of activity is not able to guarantee patient safety, into local (or neighbourhood) hospitals, and the concentration of funding required for the latest technological equipment at hospitals that are able to achieve economies of size, scale, purpose and specialisation.

These models of organisation must include governance structures that allow for the professional autonomy of physicians (and other non-medical professions), responsible for delivering the proper care, and striking a correct balance with their managerial responsibilities, and the correct use and organisation of resources at the different levels in the organisation (central, local health care authorities, hospitals, welfare and health care centres, departments, wards, etc.).

Finally, organisational models should allow for the integration of staff occupied in research, training and patient care, in order to promote the rapid passage from the development of knowledge to the improvement of the quality of life.

Ethically speaking, we may agree with the concept that you can not put a price on the value of life, but in tangible terms health care always comes with a price tag.

Starting from the consideration that the first resources available are those that are not wasted, we should underline that increasing the level of spending for prevention helps to reduce the higher future cost of diagnosis, treatment and rehabilitation. This link can be proven by applying methods of discounted cash flow or net present value. What's more, safeguarding the principles of universal coverage and equity of care that are the foundations of the National Health Service does not automatically imply that the only funding available is through taxes levied by the State. Funding can be raised via regional or local taxes, or through forms of cost-sharing, such as prescription charges, subscribing to private solidarity funds or private insurance coverage, provided the quality of services is high. The public may be willing to bear such charges if they perceive they will be receiving something with a high value.

If we set aside the ideology that was behind the setting up of National Health Services last century, we can state that a National Health Service that guarantees universal coverage may well be founded on a combination of public and private funding, and public and private care providers who have equal dignity, equal duties and equal rights (when providing similar services to the public), assessed for the appropriateness, efficacy and efficiency of their delivery of care.

To conclude, we could claim it is not true that Health Care Systems are too expensive, but it may also be that too much attention has been focused on the increase in spending in recent years, without considering the even faster increase in the quantity and quality of care and, above all, without really tapping into the potential for retrieving resources by combating corruption, inefficiency and waste.

4.2 Health Systems: Too Important to Fail

Mario Del Vecchio

4.2.1 Introduction

Almost everywhere in the world, citizens and patients receive health care services through complex systems in which public intervention (regulation, financing and provision) plays a substantial role. From this point of view, health care systems and their results are more the consequence of an intentional design than the outcome of an "invisible hand" sustaining and regulating atomistic market mechanisms. If provision and allocation of services of such an importance for people's life depend on collective decisions achieved through explicit (democratic) procedures, not surprisingly health care systems are subjected to close scrutiny by public opinion. At the same time and very often, health care is one of the most popular topics in the public debate as well as one of the hottest issues in the political arena. However, as Henry Mintzberg suggests, debates and decisions hardly reflect the "actual reality" of health care systems, emphasising their problems and underestimating the

contribution they give to our better and longer lives. The result is a pressure towards a change that, even when needed, cannot well distinguish what functions, and must be preserved in the process of change, from what actually fails and needs to be fixed.

Why do societies tend to not recognise the real value of their health care systems and what can be done in order to have debates and decisions based more on facts and evidence? These questions are really difficult to be answered. The aim of this contribution is, having in mind the Italian experience, just to offer some considerations on the topic without any ambition to develop a comprehensive analysis.

4.2.2 Health care: An Expanding and Differentiating Universe

The dramatic expansion of health care domain and its potentialities is one of the possible reasons behind a growing dissatisfaction with health care and the demands for change to the systems. This expansion occurs, and can be interpreted, along different dimensions.

The most important component is the amount of new procedures and treatments that scientific and technological progress make available for improving and restoring health. Opportunities (and costs) for health systems can come from many different kinds of innovation. In oncology, new expensive drugs are transforming what in many cases used to be a lethal disease in a chronic condition. Advances in nutraceuticals raise new hopes for the prevention of age related pathologies like the Alzheimer's disease. As the area of what can be useful for human health constantly enlarges, budget constraints tend to impose tighter criteria to payers, public and private as well. The result is a widening gap between traditional expectations to receive everything that can add something to health (every effective treatment) and what can actually be delivered by health care systems (treatments effective enough to be considered as reasonably cost-effective).

Moreover, such an expansion is also in part a cause, and in part an effect, of a blurring distinction between health care and well-being domains that is led not only by new discoveries and by medical progresses. A shift from acute to chronic diseases (the new global pandemic), changes in individuals' behaviours and attitudes (from patient to consumer), changes in health care industry (e.g. diffusion of low cost-high quality providers) are just some of the factors transforming the nature of the patients' interaction with their health care systems. For most people contacts with health care services are no longer related to catastrophic events, but they have become part of everyday's life, so their interaction with health systems is changing from merely being episodic to a more continuous relationship, if not dependency.

According to an extensive survey on health status and health services consumption of the Italian population, regularly conducted every five years by the Italian National Institute of Statistics (ISTAT 2014), during the previous year: 72% of the population bought at least one pharmaceutical product, 51% had seen a

specialist, 49% had a blood test, 36% had an imaging test, 9% experienced a hospital admission and 7% experienced a surgical procedure. Moreover, most popular and less expensive services show a significant portion of private financing (mostly of it on an out-of-pocket basis). Thus, even if the Italian National Health System (INHS) in principle provides universal coverage for all health care needs, about 30% of pharmaceutical expenses have been borne by households; 40% of visits was entirely paid by patient and another 22% was partially paid (co-payment). Analogous figures for lab tests are 13% (entirely paid) and 33% (partially paid); while for imaging they are, respectively, 23 and 32%. For rarer and more expensive events, such as admissions, private contribution is negligible (less than 1%).

Italian data tell us to what extent certain areas of health care have become object of ordinary consumption processes and experiences. At the same time they show how hard it can be for a public system to cope with a growing and enlarging demand. The debate around the role of voluntary health insurance in universalistic systems testifies that problems are not limited to specific countries (Thomson et al. 2015). In this perspective, dissatisfaction with the system—expressing either as voice (people complaining for waiting times in the public sector) or exit (private consumption of services already included in the “public basket”)—may be the result of a fundamental difficulty that a society has in making explicit choices about what can and should actually be provided under collective responsibility. In fact, the more the consumption of health care becomes similar to that of any other good or service, the more the difficulties grow for societies to draw clear-cut and agreed upon lines separating collective from individuals’ responsibilities. Therefore, individuals may feel they have the right to receive all services, provided they pertain to the health domain, while public systems cannot cover the new, larger, health universe to the same extent as they did in the past. As long as the inevitable rationing of the more popular, and sometimes less effective, services is more the result of implicit mechanisms (waiting lists) than of explicit (political) decisions, it is almost fatal that the public opinion tends to look at the missing part, overlooking how significant is the part of health needs that health systems are still able to cover.

4.2.3 Public Opinion, Media and the Political Debate

Public attitudes towards health care systems are the result of different mechanisms and subjected to many influences. Analysing the paradoxical coexistence among Canadians of a strong support of their health care model, on the one hand, with a growing dissatisfaction with health care policy and a demand for radical changes, on the other, Soroka et al. (2013) propose to look at the issue considering two different dimensions. The first one is the source of the attitudes towards a health care system that can be either a direct personal experience or something like a “collective experience”, that is the perceptions that individuals have of the beliefs or experiences of others. Both sources influence attitudes, but their relative importance

depends on the specific question asked to individuals. From this point of view, a judgement about the quality of interactions with doctors is likely to be influenced by different and more personal sources than a judgement about the quality of the system in general. A second dimension distinguishes between retrospective and prospective attitudes. People have attitudes about the past and the future, and they may differ, as well as they may exert an influence one on the other. Thus, if the past is the natural basis for any future attitude, expectations about the future may, in turn, have an autonomous influence on the attitudes about the past.

Building with the two dimensions a two-by-two matrix results in a four-fold distinction of attitudes on health care: personal retrospective, personal prospective, collective retrospective and collective prospective. Only personal retrospective attitudes are likely to be predominantly driven by personal experience, while the others incorporate different, but significant, shares of perceptions provided by “external sources.” Among such external sources, media content as well as messages prevalent in the political arena play an important role in educating citizens and shaping public opinion. Political messages are conveyed and interpreted by media, and, in turn, how media frame health care-related issues influence the political agenda. Therefore, what is usually referred to as public opinion attitudes about health care (in Henry Mintzberg words: people telling us that their health care system is failing) is the result of complex interactions among individuals’ personal experiences, analyses and messages circulating in the political environment, media representation and interpretation of a given health care system.

Usually, opinions based on personal experiences with health care services are more positive than those based on external sources. A recent extensive survey about EU public perceptions of the quality of health care (European Union 2014), shows that the older the respondents, the more likely they are to say the quality of health care in their country is good, and the same is true of respondents with higher education levels. It is well known that, for different reasons, both categories have higher than average utilisation rates of health care services. Unfortunately, five years of economic crisis and increasing pressures on public budget may have worsened individuals’ personal experiences in many countries. In Italy, since the beginning of economic crisis, public health care expenditures have been stabilised after two decades of uninterrupted and substantial growth. This has implied, in certain regions in particular, the implementation in the public sector of severe cost-cutting policies accompanied by a lengthening of waiting times for visits and diagnostic procedures. According to Censis (2014) 53.4% of respondents are prepared to wait longer before receiving ambulatory services and 48.1% during the previous year had decided to opt for private services, because of the waiting times. The same research shows that negative attitudes on the quality of their regional health system are growing: only 5.5% of citizens think that it has increased (11% in 2011), 38.5% think that it has decreased (29% in 2011) and 56% think that it has remained the same (60% in 2011). The main reasons behind negative judgements are waiting lists and waiting times for ambulatory services, that is, reasons probably more linked than others to personal experiences.

Besides a probable worsening of personal experiences in an area critical for consensus such as that of ambulatory services, external sources are at work. In particular, the prevailing political narrative about INHS may have contributed to diffuse dissatisfaction in the public opinion. An analysis of how problems related to health care are framed and communicated in the Italian political environment is still to be carried out. However, especially at national level (in Italy health care is under the responsibility of regional governments), politicians tend to describe (and public opinion is aligned to such vision) health care as a sector where expenditures are out of control and a lot of resources are wasted. It is not the case to discuss here the actual efficiency levels of the INHS, but it is clear that the larger the efficiency gains potentially exploitable in the system are the lesser is the necessity for structural changes that are always dangerous in terms of consensus. It is easier to tell public opinion that the needed cuts in the public health care budget would not have any impact on levels of services than to readjust expectations about provision of public services. Moreover, the “rhetoric of wastes” shifts the responsibility towards others actors such as regional governments, public managers and to a less extent towards professionals.

Media, traditional and new as well, not only convey and amplify political messages, but substantially contribute to the formation of public opinion, often in a negative direction. One of the few researches about media and health care in Italy (Del Vecchio and Rappini 2010) confirmed the notion that newspapers devote a substantial coverage to health care issues, especially in local pages, but showed also, how they pay a selective attention to negative events. News that can best fit the image of a health care system in crisis are preferred to more positive news that risk to contradict the popular *vulgata* of an ever present *malasanità* (scandals and bad functioning) characterising the INHS, *vulgata* that readers expect, and in part want, to be confirmed by the printed pages.

4.2.4 What Can Be Done to Better Support Healthcare Systems and Their Achievements?

The undoubtable achievements of health care systems are not so easily recognised by public opinions in modern societies, while public debates and the dynamics of consensus tend to ignore facts and evidence, at least in the short term. Traditional approaches to the welfare state need to be changed, and not only for economic reasons, but public support for structural changes is weak, and the economic crises makes resistance to change stronger.

Capabilities to change in any society depend on many factors. The possibility for the same societies to recognise the real value of their health care system too depends on many factors. Henry Mintzberg suggests that an indispensable and preliminary element in order to preserve such important systems is a sensible diagnosis and tells us that wrong diagnoses, as well as wrong therapies (myths), are

widespread. The diffusion of myths is not an exclusive responsibility of the scientific community, but scholars and researchers have a definite responsibility. Not only they should produce better evidence and analyses, but they should also feel a stronger responsibility for the diffusion of sound analyses and their correct utilisation.

Health care systems are a fundamental part of social systems and, in this perspective, we can hardly confine ourselves to what Weiss Hirschon (1991) defined as data and findings. In certain occasions, the spreading of ideas (the framing of problems and issues) and even playing some role in the political arena (advocacy) may well be part of our responsibilities as scholars towards the collectivities we belong to.

4.3 Are Healthcare Systems Failing?

Patrizio Armeni

4.3.1 Introduction

Health has impressively improved over the last century. OECD health statistics (2015) show that since 1970 there has been a generalised, although not homogeneous, improvement in health conditions (e.g. cancer rate survival, vaccination rates, quality of in-patient care) in the OECD Countries. However, most health care systems are nowadays facing a variety of challenges.

The most economically advanced countries are capitalising the positive impact of health technologies and organisational innovations introduced in the last century with a substantial increase in life expectancy. In 2015, people live on average 5.2 years longer (OECD 2016) than they did in 1990 in the Big-5 European countries and +4.3 years in the U.S. At the same time, due to a low birth rate, population in these countries is ageing. The proportion of people aged 65 or more is 19.9% in the EU Big-5 and 14.8% in the U.S., showing a dramatic increase compared to 1990 (+5.3 points and +2.3 points, respectively, OECD 2016). Consequently, we are experiencing a higher incidence of chronic-degenerative diseases, with intensified health and social care needs, requiring a parallel increase of health-related resources. Moreover, scientific progress and technological innovation are generating opportunities which translated in higher perceived needs, putting additional pressure on costs. In developed countries, longer life expectancy and ageing (which is also affecting pension funding) coupled with technological innovation are often considered to be the drivers of unsustainability of health care systems.

A similar conclusion, but drawn from different arguments, is often proposed for developing countries. There, the fast growing number of inhabitants, associated

with increasingly widespread prevention policies (often funded by foreign non-profit organisations), better hygienic conditions and more informed and educated populations require governments to drive the evolution of health care systems from minimal or rudimentary institutions to complex and effective systems. This change is similar to the one experienced in the past by developed countries, but with the significant difference that nowadays spill-overs and interdependencies are much more evident, pushing these countries to adopt a faster pattern of evolution which is not necessarily their natural/sustainable one. Such pressure could stretch the mechanisms required for a balanced growth.

Focusing mainly on developed countries, it is possible to analyse the current challenges more in-depth with three arguments. First, the uncertainty of the relationship between life expectancy/ageing and health expenditure; second, the evolution of public coverage and the role of co-payment; third, the role of the health care sector as a driver of economic growth.

4.3.2 The Uncertainty of the Relationship Between Life Expectancy/Ageing and Health Expenditures

The literature has extensively analysed the relationship between life expectancy, ageing and health expenditure. To date, no ultimate evidence is available on this topic. According to the setting and the methodology used in the various studies that have tried to shed more light on this relationship, results vary considerably, ranging from the evidence of a positive relationship (longer life and ageing lead to increased expenditure) to neutral or even negative ones (e.g. Chernichovsky and Markowitz 2001). This lack of consensus is due, mainly, to (i) the uncertain causal direction; (ii) the presence of many possible mediators and/or moderators and (iii) the influence of end-of-life costs. We will present some examples. With respect to the causality issue, Meerdin et al. (1998) report a positive correlation between health-related disabilities and health care resource utilisation. Lichtenberg (2004), instead, finds an opposite direction of causality between public health expenditures and longevity. Zweifel et al. (2005) support the hypothesis of a two-way direction of causality between ageing and health expenditure. As for the end-of-life treatment costs, they have been recognised as a crucial influencing factor (Lubitz and Riley 1993; Garber et al. 1998; Hogan et al. 2001). In fact, after assessing the costs incurred during the last year of life, the relationship between longevity and health care expenditure can turn non-significant (O'Neill et al. 2000). In this light, life expectancy and ageing both tend to shift costs over time rather than to increase them. Other studies have found non-significant or mixed evidence (Getzen 1992; O'Connell 1996; Barros 1998). This is a signal that the relationship, if one exists, is affected by many possible confounding factors (not necessarily exogenous). We tested a longitudinal mediation model using WHO historical data to assess the relationship between life expectancy in t , health expenditure in $t + 1$ and life

expectancy in $t + 2$: we found that there is a significant mediation for both directions of causality (we inverted the mediator and the independent) but the mediated impact was always low in magnitude (around 1%) and the incremental explanatory power was low (+2%), leaving the explanation of the increase in both expenditure and life expectancy to other factors. Such variety supports the idea that longevity and ageing can be related to health expenditure, although the relationship is neither ineluctable nor necessary because many factors can influence it. Therefore, a pure fatalistic approach under which health care systems will probably collapse due to increased life expectancy and ageing per se is too simplistic.

4.3.3 The Evolution of Public Coverage and the Role of Co-payment

Beyond the longitudinal relationship between the potential demographic causes of unsustainable health care, the simultaneous relationship between needs and resources requires attention, too. It is true that, nowadays, many health care systems are trying to reduce public expenditures with different strategies, including linear cuts, efficiency gains, new organisational arrangements, etc. The diffusion of spending reviews and cost-containment actions is due to the simultaneous increase in needs and stagnation of the amount of resources available for public expenditures. Health care systems based on public universal coverage are challenged since cost-cutting policies, paired with increasing needs, generate the threat of rationing. Provided that a gap between needs, opportunities and resources exists and that such gap is unavoidable, a shift between public and private expenditure is to be expected. However, in many cases there is evidence that the shift is absent or partial (e.g. Armeni et al. 2015a, on pharmaceutical expenditures) and the amount not explained by the shift is mainly due to patients' renunciation (Armeni et al. 2015b). The latter is a notable evidence of under-treatment, a circumstance that could produce a negative rebound effect on financial sustainability itself in the long run. To prevent such negative loop, a change in the perceived meaning of co-payment could play a major role, as well as the satisfaction of emerging or uncovered needs obtained through parallel market mechanisms (e.g. sharing economy). The sharing economy, whose benefits and conditions would require extensive attention, is only cited here as one of the potential and innovative solutions for activating the latent value in an economic system (e.g. Hamari et al. 2015). However, in a health care system, there are many services (e.g. surgical interventions with advanced technologies, access to innovative drugs etc.) where the sharing economy has a limited potential of penetration. To offer a solution to the gap between opportunities and resources, the role of co-payment can be revised. Nowadays many public systems adopt a dichotomist approach to co-payment: either the service is covered by public expenditure or it is completely private (or with fixed proportions of co-payment). The possibility of an upgrade is often seen as unequal. In particular, co-payment now acts as a pure

buffer of expenditure cuts, generating regressive inequalities. Such positioning could drive to unsustainability, because it follows the illusion of unrestricted public coverage under growing needs. In fact, under the current dichotomy between fully covered services and fully out-of-pocket ones, patients are either convinced that they can access services for free (while they might be required to wait) or they are forced to access the services paying the full cost out-of-pocket (so they often renounce). A different option is to let co-payment work as a premium price and, consequently, as a driver for the diffusion of innovation. For instance, public coverage could be focused on programmes and technologies showing appropriate value for money for the general population (evaluated through processes like the Health Technology Assessment); instead, programmes, solutions and technologies excluded from public funding could be proposed as possible “upgrades” for patients able/willing to pay the extra cost. Instead of extending public coverage, whose impact is to lengthen the time to patient access (which is actually a form of rationing), governments should be concerned with defining what the public sector can cover immediately for everyone and which services can be provided as “extras” or as “upgrades.” The latter can be still offered in a public setting, only applying the extra cost to the patient, who will perceive it as a premium price. Under an economic perspective, the “extra/upgrade” approach, compared to the “dichotomist” public/private rule, would represent a Paretian improvement, since more people could pay for the upgrade, reducing under-treatment, with no surcharge on public expenditure. In conclusion, the current gap between needs and resources requires a rethinking of the meaning of “public universal coverage” towards the more realistic “publicly sustainable universal coverage”, where the best publicly affordable quality is offered for free and any upgrade falls under the area of well-being instead of health care.

4.3.4 The Role of the Healthcare Sector as a Driver of Economic Growth

A last important argument to support the idea that health care is not necessarily pushing countries towards collapse is the evidence that the health care sector is an important driver of economic growth and that there is a mutual causality between quality of the health care sector and economic growth. Ageing and longevity are demanding more resources for health care but these circumstances can create the opportunity of a growing sector instead of just representing a threat for public systems. A “healthy” health care system attracts investments by companies, stimulates human capital formation and ultimately generates value. The expansion of partnerships with the private sector testifies that health care is not only a weight for the system, but also a driver of economic growth. Many studies have investigated the relationship between health care quality and expenditure and economic growth, showing evidence of a positive and often bidirectional relationship (e.g. Baldacci

2004; Bloom et al. 2004; Ogunbenle et al. 2013). Looking at health care in an economic development perspective highlights its potential positive influence on interdependent industries. To show how a high-quality health care system holds the promise to positively influence the broader economic system, we can highlight at least five crucial interdependencies. The hypothesis we want to support is that investing in health care is not a pure deadweight cost, but that it is productive for the whole economic system. Firstly, the health care system has important spill-overs with the research system. A “healthy” health care system creates opportunities for research in the domains of science (e.g. medicine, pharmacology, engineering, etc.), management (e.g. how to efficiently organise services, testing innovative organisational arrangements to unfold latent dimensions of value, etc.) and policy (e.g. how to rethink the role of co-payment). The amount of research produced is a benefit for the health care system, generating a positive loop between investing in health care and investing in research. Secondly, the industries selling products and services to the health care systems represent an important interdependency too. The pharmaceutical industry, the medical device industry and the number of service providers are often seen as “cost generators” for a public health care system. However, beyond representing an important job market for local graduates, firms selling products and services to the health care system are an opportunity for enhancing the quality and specificity of the solutions on offer. The geography of new business development of pharma and medical device companies testifies that investments in health care also attract investments in these industries, contributing to economic growth. The greater the willingness to invest in innovative products and services, the greater the opportunity for local and global firms to grow, bringing fresh resources to an economic system. Thirdly, the public health care systems are becoming increasingly complementary with private providers, either for-profit or not-for-profit. The sustainability of a whole health care system will be increased by the capacity of private providers to find business opportunities that do not increase public expenditures. The sharing economy and the revisited role of co-payment can play a major role, but also the ability of the public sector to efficiently drive the evolution between internal production and externalisation can gradually improve the overall efficiency of the system. Fourthly, health care systems are increasingly open to the international market. The efficiency of a system can be reached by accessing the international production system, where excess demand and productive capacity can be matched. Moreover, this trend is an incentive for national systems to find and invest in their distinctive excellences to attract foreign demand. Such trend is nowadays growing but still very limited (e.g. in Italy, the net value of international mobility has been around 150 million euros in 2013). Finally, a “healthy” health care system is also attractive in terms of education. Students and executives can be attracted by a health care system showing the traits of excellence, bringing non-financial economic resources (e.g. knowledge) into the system.

In conclusion, we should be conscious of the challenges that health care systems are facing, but we should also reject fatalistic and purely pessimistic views. In this short contribution, we have presented three arguments to reflect on the real nature of the challenges and on the latent opportunities concealed by the same challenges.

4.4 Behind the Clichés. Spending Review and Organisational Change in the Italian NHS

Vincenza Esposito, Mario Pezzillo Iacono, Lorenzo Mercurio and Joseph Polimeni

4.4.1 Introduction and Aims

The link between healthcare needs and services paid by the public and private healthcare system has been the key focus of studies and analyses which, over time, have given rise to very extensive and in-depth management literature (Henry Mintzberg 2012).

One of the trends that unite more strongly the experience of public administration reform in Europe is that of rationalisation and reduction of operating costs of their own organisational models, often labelled as Spending Review (SR) (Porter and Teisberg 2006). These reforms have two main purposes: to contain public expenditure and to increase the efficiency and effectiveness of public administrations (Esposito et al. 2015).

Of course, the key issue is whether and to what extent it is possible to cut costs without reducing service quantity and quality (Mercurio and Adinolfi 2005).

Twenty-first century healthcare systems face many problems which are independent of resource availability, and often result in an over-medicalisation of society: the variability of processes and outcomes, increased risks for patients, wastage, the system's inability to boost value, inequalities and the inability to prevent disease.

In Italy, in particular, coinciding with the financial and economic crisis of recent years and the strong need to limit public expenditure and stay within the budget, there is a lively debate in political, social, media and academic spheres on the subject of SR in the health sector. Mentioning SR is right and to be expected, however, it should be stressed that reducing costs does not in itself ensure a continual virtuous cycle where there are both efficiency and the ability to meet the increasingly strong and diverse needs of the community (de Belvis et al. 2012). SR applied to health systems must be the highest expression of a method of managerial and organisational change based on planning skills, managerial and leadership abilities, as well as on management models and assessment, monitoring and evaluation techniques.

In particular, SR in the health sector must start with the political, managerial, professional and social awareness that health care is perhaps the only market affected by supply and is one of the main sources of consumerism among citizens. It is an extremely complex market at the centre of numerous stakeholders' interests: politics (National, Regional and Autonomous Provinces), public and private health care companies, managers, healthcare professionals and citizens, but also the

pharmaceutical and biomedical industry, scientific associations, unions, professional colleges, patients' associations, etc. In this regard, SR must not be seen as a mere cost-cutting mechanism, but as a methodological approach to redesign models, practices and organisational and management tools in the health sector, taking into account the complexity of the stakeholders involved and the lack of homogeneity among the solutions adopted at local level.

Our goal is to provide a reflection on the approach to SR in the Italian National Health Service. After presenting an analysis of the concept of SR in a framework of organisational change (van der Voet 2014), the focus will be on the methods of its actual implementation in the Italian health sector, to then conclude with some final considerations on the need to find a new systemic and holistic approach to SR in the medium to long term.

4.4.2 Moving Beyond the Myth of Measurement

Following the development of a set of political, economic, technological and regulatory factors over the past few decades, public systems have undergone major changes to innovate and improve the efficiency of their equipment. Indeed, as the context within which public organisations operate has changed, an overall need for transformation has risen to ensure the delivery of innovative and high-quality services to groups of users with varying and increasingly complex demands. The approach to productivity and efficiency in public action has thus come alongside with the growing demand to effectively guarantee the rights of individuals and promote the development of communities with careful planning and regulation.

At the same time, the recent economic and financial crises are increasing the complexity faced by public management and demand addressing the approaches and action models for SR, but also—more broadly—of the need to change the organisation of public systems (Mercurio and Martinez 2010).

When reflecting on SR action models, it is clear how crucial it is to focus on the relationship between (a) the outputs and outcomes that an administration intends to achieve and (b) the characteristics and quantity of the resources it uses.

Indeed, the most successful SR interventions are planned with a clear strategic mission and encompass the approach to organisational change (be it incremental or radical) of the working processes of public action. The development of an SR process requires a proper overview of the organisational activities and the expected, declared, assessed and measured results in relation to the contextual conditions, specialist knowledge and, not least, the cultural values that arise in the specific organisational structure. In short, an SR programme should always be seen as the component of a broader “strategy”, stressing the importance for the organisation to adopt a well thought out managerial/directional tool to ensure the programme is successful. Indeed, the will and strength of the need to “rationalise” expenditure are not sufficient to make a lasting impact on the actual running of organisations over time.

In any process of change management, the essential backdrop that creates the conditions for change to be successful is to have a shared vision: an end goal expressed clearly and consistently for the benefit of all stakeholders involved in the process itself. A future vision for an organisation investing in change must have a managerial culture made up of a clear implementation schedule, individuals to be involved in various types of partnerships and initiatives, and the costs and benefits to be negotiated at the outset or during the implementation of the programme. A sensible vision of the change process can help to build a common base of knowledge, legitimacy and commitment between the stakeholders involved in the project, thereby reducing any inevitable resistance. Moreover, there must be a strong planning phase: a phase where the specific goals of the change are “interpreted”, modelled and adjusted—from the initial structural and relational conditions—to achieve the much-needed harmonisation between the various items of expenditure of the given organisational structure.

However, this kind of change process rarely provides effective and lasting responses—compared, for example, to targets aimed at reducing the running costs of a public organisation—if they are top-down and, especially, if they are enacted uniformly to different administration populations.

4.4.2.1 The Role of Managerial Practices for Organisational Change

Aside from the importance of the planning processes mentioned above, the truly essential resource in any change in management processing often proves to be managerial competence when managing “emerging” organisational models (van der Voet 2014). Managers’ awareness and competence are essential to interpret these patterns and to make a lasting impact on the running of administrations and, in turn, on their actual spending levels. These skills and behaviours must go along with “professionalism” when effecting change and building management support tools, as well as distinct leadership qualities and negotiation skills. To make an explicit reference to the Italian health sector, it should be noted that purchases are made by Local, not Regional or National Authorities. Furthermore, there is clear disparity among and within regions and individual Local Health Authorities.

4.4.2.2 Instability of Conditions and Mistrust

The expected resistance of pre-existing organisational models to the “threat” of change can often be seen in concrete experiences in Italy, together with some very critical factors: the turbulence of the political/institutional context, the conflict between management and political commitment, and the public’s underlying mistrust.

The sudden and unpredictable changes in control groups and how authorities are managed, the impact of developments in the political and institutional context, managerial behaviours geared towards building alliances and coalitions to achieve

results and programmes, often create a deafening “background noise” that surrounds and restricts initiatives aimed at change. The implementation of organisational development projects are often hampered by the constant “reshuffling of cards” that change the “rules of the game” and political power that controls and determines the changes that are actually pursued.

More often, the weakness of local politics has been complemented by that of regional government bodies that often passively support the SR choices made at national level, yet without producing legislation and/or guidelines to tangibly facilitate their implementation.

Therefore, there seems to be a strong resistance to change at all levels of government, whereby the rational and formally shared topics of SR clash with two other systems of power, exercised in a negative form: the propensity not to decide and to preserve structures established over time, for which it is all too easy to raise “tactical” arguments.

This is the widespread expression of “dual power” in public organisations. This critical situation, especially at an early stage, makes it very difficult to quickly acquire the information needed to identify both the stakeholders and the main steps of the process being analysed. In other cases—despite the legitimate and widespread demands for innovation, which often naturally support identifying subjects, content and the expected results of the change—the current internal dynamics between political governance bodies and management are complicating the formalisation and legitimisation of the commitments.

4.4.2.3 Legitimacy and Significance of Standards for Reviewing Costs and Assessing Performance

A final significant factor for the structuring of an SR meta-model, which can tangibly support the effort to rationalise costs in the health sector, is the availability of structured information on standard values and other performance indicators.

Being a process of change, every SR intervention, for reasons explained above, must be accompanied by a clear definition of the “end goals”, a strategic vision, but above all, concrete outcomes and target indicators of technical and operational performance. In this regard, every target provided in the start-up phase of an SR intervention (such as those relating to overall cuts in specific categories of running costs), in addition to being a real restraint to the process of change, is also an external factor that guides the more general policies and organisational choices of a given structure.

The need to reduce costs relating to a specific service or operational area has spread like wildfire across all areas of the organisation. To stem this risk, two key contextual factors may come into play. On one hand, the process of change can be facilitated by the introduction of institutional and independent organisations (observatories, authorities, agencies, research centres) with structured data sources relating to specific performance standards and cost categories related to SR (such as the performance data sources in health care which can be a clear factor in

establishing the standard costs of a service or staff costs). On the other, the same benefit can be taken from central government measures which have transparent mechanisms to enable technical adjustments of targets set—or rather imposed—by SR. Regulatory provisions that allow some flexibility to establish target values and indicators which are more in keeping with policies and, above all, with the specific organisational conditions and context.

In other words, these two additional components may compete to create an “institutional infrastructure” that can support the rationalisation of government bodies’ organisational models. The autonomy and reputation of third parties that could help to measure and assess, at national level, the desired performance standards—compared to families of well-defined work processes—serve as quality assurance factors in the evaluation process.

4.4.3 The Scope of the Spending Review in the Italian National Health Service

In the current climate, the Italian National Health System is at the centre of conflicting pressures: on one hand, the need for spending cuts and, on the other, the constantly growing demand for personal care services.

In Italy, health spending is between 70 and 80% of regional spending and is currently worth around 110 billion euro. The critical point, as mentioned above, is whether it is possible to reduce spending without compromising services (Armeni and Costa 2015).

Excluding the “health services” and “staff costs” items, the spending perimeter, quickly attacked in the National Health Service, has shrunk to around 30 billion euro. These are supplies and services ranging from medicinal products to diagnostic materials, lab coats for doctors, cleaning services, canteens, heat and maintenance.

The recently adopted solutions were made up of three types: centralised purchasing; adopting standard costs; the ability to renegotiate contracts (concerning “personal” expenses).

Therefore, the rationalisation of healthcare costs focuses on purchases by setting reference prices and establishing price “observers”: these are areas where there seems to be real margins to boost the systems’ efficiency and make savings. And where, typically, corruption can be endemic, which is perhaps the worst form of inefficiency among government bodies. The recent ISPE-Sanità White Paper, for instance, estimated that 23.6 billion euro was wasted in relation to corruption in the health sector in 2013.

Returning to the subject of the SR policies adopted, centralisation—i.e. concentrating the purchasing function for an ASL/AO leader or dedicated institution—aims to take advantage of public market power and seek economies of scale when managing purchases and staff specialisation. Centralisation requires standardising the needs and consumption processes. Standard supplies, like medical products, can

be consolidated relatively easily. If the same logic is applied to services, including those which appear simpler such as cleaning, where the costs depend on the context in which the services take place, the situation seems much more complex. Setting out standard costs requires a single classification of purchase items, supply contracts and production processes with which these goods are used to provide the service. On this subject, standard prices should only be seen as benchmarks and points of reference, rather than a formal requirement laid down by law. A recent resolution by the National Anticorruption Authority set the reference price of several consumer goods in hospitals. ANAC prices are based on a survey conducted between March and May 2014 on a sample of 283 administrations. For now, the focus has only been on “syringes”, “cotton wool” and “patches”, which cost just a few cents per piece but which are used a great deal. It is difficult to say how much they impact spending: as part of SR, the estimate for the entire category of medical equipment was over 5 billion euro a few years ago, 4.5% of current public health spending. All prices should, however, be extended to cover all expenses for the purchase of goods and services.

Yet what has been lacking is a more “micro” perspective of the purchase issue: purchases are made by Local, not Regional or National Authorities. Furthermore, there is clear disparity between and within regions and between individual Local Health Authorities. As such, the subject of management skills (and meritocracy) is a fundamental element which cannot be ignored.

4.4.4 Final Considerations

SR cannot be seen as an “emergency” activity due to the crisis, but requires taking action “step by step” on the purchasing processes and “production” processes especially, while addressing redesigning organisational practices and models. Boosting efficiency by offering better services is a medium-term goal; it requires structural measures that are not dictated by urgency and above all requires investments: redefining the service network, redesigning care processes, staff training and computerisation. It is necessary to adopt system actions and far-reaching structural policies, which set clear goals and go beyond the cost of syringes or cotton wool. In other words, SR should not take on the role of a system of extraordinary corrective measures, but rather should be integrated within the entire process of redesigning culture, organisational models and practices, as well as management performance, so that it can become a systematic tool used to seek the most efficient and effective ways to ensure the Essential Levels of Care throughout the country.

A sustainable health system—regardless of its nature (public, private or mixed) and share of GDP allocated to health—is not possible without adequate investment to improve the production of knowledge, its use by professionals, and the governance of the process to transfer healthcare knowledge. This is because most of the waste is due to the difficulty in transferring research into clinical practice and into the organisation of the health services.

The first step is undoubtedly to realign the diverging and often conflicting goals of the various stakeholders. Policies to protect the Italian National Health Service require adequate healthcare (re)programming. This must start with people's care and social needs while involving all categories of stakeholders and taking into account the epidemiology of diseases and illnesses, efficiency, suitability and cost-effectiveness of existing health care and services—a fundamental “triangulation” which has never before been applied in Italy.

It is also essential to use the knowledge in all policy, managerial and professional areas that affect people's health and to reduce imbalances in information among citizens.

Lastly, more broadly speaking, one cannot fail to point out that one of the levers for the reallocation of healthcare costs based on the actual needs of the community can be found in information and prevention policies. This involves significant investment at an early stage but produces significant economic and social benefits in the medium and long term. With this in mind, it may be possible to improve the effects of the reorganisation of the health systems, especially in the long term.

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