Brief reflections on the relationship between Economy and Healthcare (and Health)

by Federico Spandonaro*

Abstract
The paper proposes some reflections on the relationship between Health (and Healthcare) and Economy: after a brief historical examination of the development of institutional and academic attention to economic problems related to Health, it points out the aspects on which the clinical and economic approaches are assonant (e.g. for the decision-making criteria adopted) and those on which they are dissonant (e.g. in terms of paternalism of the approach).The paper then addresses the issue of the conflict between increasing scarce resources and growing needs, underlining the problems of equity that it implies, as well as providing an indication of the ethics used by economics to solve this trade-off.

Keywords
Health Economics, Healthcare Management, Equity.

Awareness that Health and Healthcare are issues that also involve economic problems seems widespread today, but it is a relatively recent phenomenon.

In a very conventional way, one can place the origin of an interest of the social sciences towards Health in the first post-war period. An "evocative" date is represented by 1948, date which marks the establishment of the WHO (World Health Organization), but also the birth, in the United Kingdom, of the first universal health service: the NHS (National Health Service).

We must wait a few more years to see Health Economics recognized as an "autonomous" and "specialized" branch of the Economy: it is equally conventional to trace the birth of *Health Economics* to the publication, in 1963, of the paper "Uncertainty and the Welfare Economics of Medical Care" by K.J. Arrow [1].

After all, the acquisition of this widespread awareness of the existence of significant economic and social impacts of Health/Healthcare can be traced back to a series of factors, difficult to sort by priority, that have contributed

* University of Rome Tor Vergata – C.R.E.A. Sanità.

overall to increasing the political and scientific attention on Health. Without claiming exhaustiveness, we mention:

1. the affirmation of the idea that the protection of health is an inalienable right and therefore linked to citizenship: it is a conquest of civilization, probably also promoted by the will to leave behind the horrors caused by world wars;
2. the spread of globalisation;
3. the rapid growth of scientific knowledge;
4. an awareness of the intrinsic complexity of the healthcare sector, which is the subject of Arrow's founding contribution.

The first point is that it has led to the establishment of international organizations dedicated to Health along with the first public health services. These brought about a revolution in the criteria of resource allocation in public budgets (in developed countries, Health is the second item of the public budget after social protection). As a consequence, an interest in the "macro-economic" impact of Health arose. The second point confirms the importance of a supranational governance of health problems, but also marks the economic interest for highly supranational industrial sectors, such as Life Sciences.

The third point is relevant because it has generated a huge growth of therapeutic opportunities (the incredible and fast extension of life expectancy is the confirmation of this), but also a rapid growth of the health budget.

The fourth point has quickly proved to be a strategic element: the complexity of health systems has confirmed to be really relevant, posing huge challenges to the definition of health policies, but also, at the micro level, to the management of health services.

The following decades have only confirmed the economic and social importance of the sector, demonstrating the existence of an inseparable link between health/healthcare and economic policies.

It is beyond the scope of this contribution to analyze almost a century of development of the economy and management of Health: it is enough here to mention the recent pandemic of Covid, to demonstrate how, as a result of globalization, beyond goods and people, today, pathogens are circulating with incredible speed, with no borders that can contain them and that require enormous efforts of coordination and economic investment. The pandemic, along with the decision to adopt the so-called lockdowns, has also confirmed that population health levels are, without doubt, an essential determinant of economic development. Not to mention the exponential growth in the cost of therapies: precision medicine and new therapeutic approaches (mention should be made of the so-called ATMP – Advanced Therapy Medicinal Products), have led to launch therapies on the market with treatment costs that exceed (in Italy) even two million euros per patient.

Together with the growth in costs, almost paradoxically, we are also witnessing a growing (and consequent) difficulty in producing evidence in terms of effectiveness and safety, necessary for the processes of market access, resulting in an explosion of the levels of uncertainty, and therefore of the complexity in the decision making process, already prophesied by Arrow.

On a practical level, the "encounter" between Econ-

omy and Health is certainly favoured by the fact that they are “twinned” due to a cultural approach that is largely overlapping.

Economic science is based on the principle of the need to make choices: according to M. Friedman the sense of economy can be summarized with the adage «There’s No Such Thing as a Free Lunch», title of a famous 1975 book [2].

In other words, the Economy observes that every person, during his/her life, is continually called to make choices, and that these choices happen in a context of scarce resources; this last assumption, in some way axiomatic, is however pragmatically evident: this is because it does not stem from the consideration of scarcity in physical terms, but rather from the effects of allocation choices. In other words, it is easy to see that, in general, any resource can be used alternatively, and therefore any choice to use a resource for an end, also implies the renunciation of using it for another goal.

Each decision/choice is aimed at producing a benefit but, in a context characterized by “scarcity”, this implies accepting a cost. In Economics, costs are simply the renunciation of lost opportunities by deciding to use resources in one way rather than another.

So the Economy studies how these choices happen, assuming that the subjects (people and/or organizations) decide rationally, in other terms try to maximize the benefits obtainable and, at the same time, minimize the costs.

In a more “formal” way, the Economy exemplifies the process of seeking well-being (utility in the economic lexicon) that characterizes human behaviour, assuming that it is based on the objective of maximizing the balance between benefits and costs (search for efficiency in the economic lexicon).

The previous, synthetic and rough, description of the foundations of economic theory, describes an approach that is largely similar to that practiced for centuries in the clinic, where the principle of maximizing the balance between benefits and risks is adopted.

Over the centuries, the “rule” has been established whereby medical intervention is aimed at maximising the benefits for the patient, while minimising the risks involved in any therapeutic choice.

It therefore seems evident that the cognitive map is substantially common in the two approaches.

To find some real difference between the two approaches, we must observe that, in the clinic, the benefits are those of the health of the single patient, while in economics they are more generally linked to the overall quality of life perceived by the patient (and perhaps his care-givers). Similarly, the risks in the clinic are those related to therapy, while the costs of economists are, more generally, all the “disutilities” linked to the renunciation of alternative opportunities. In other words, there seems to be no awareness of resource scarcity in the clinical “benefit versus risk” approach.

The overlap of the approach has certainly favoured the “interview” between the two disciplines, but its remaining differences have also been the basis of some risk of misunderstanding, with the increasing attribution of managerial responsibility to health professionals. In fact, they were asked to move from an “individualistic” approach, one to one, which is typical of the relationship between doctor and patient, to one that expands the perimeter of the alterna-

tives, setting the ambitious goal of maximizing social welfare. The need to overcome this “individualistic” approach has, however, provoked many resistances, placing professionals in a critical position towards the economic approach.

This resistance is also linked to the paternalism of the clinical approach, which has clashed culturally with the absolute absence of paternalism of the economic approach. While the clinician poses himself as “perfect agent” of the patient, able to make the choices that maximize his well-being, the economist “adapts” to the subjective choices of the patient, provided that he is supported by a complete information (axiom of consumer’s rationality). To give a rough example, to the clinician the habit of smoking appears to be an evidently irrational choice, and as such to be countered; for the economist it is, instead, “not questionable”, to the extent that the smoker is aware of the risks he runs. In this case, if the subject decides to smoke anyway, the Economy assumes that the benefit (pleasure) obtained from smoking has been estimated to be greater than the cost (risk) that it entails and, therefore, is to be considered a “rational” choice.

In any case, with the passage of time and the continuous interaction, many misunderstandings have been recomposed. Perhaps one exception is related to the “non-acceptance” of the axiom of “scarcity of resources” that, in the debates on Health, for some remains the subject of perplexity.

Moreover, it is clear to everyone that, at world level, Health is increasingly conditioned by the lack of financial resources. This might be for different reasons: if it is difficult to guarantee universal health protection in countries with lower economic resources, both because of a lack of resources and because of the growth of inequalities, in the richer countries, on the contrary, it is the growth of the therapeutic opportunities, and the relative costs, to have put the system into a “crisis” situation. This discrepancy between therapeutic opportunities and resources has imposed “uncomfortable” choices: specifically, it has led to a prioritization, more or less explicit, based on the contexts in which it is placed, of the health needs to be met.

Prioritisation, the result of scarcity, implies the risk of rationing and, therefore, has generated adverse reactions from a significant part of the health profession, as it is perceived as, substantially, immoral and/or the daughter of a bad policy (the evidence that the doctor must act according to “science and conscience” often goes against the need to take into account a budget).

In Italy, for example, priority has been given to the definition of LEA (Essential Levels of Assistance), that is to say, the services to be guaranteed to all citizens. LEAs, as explicitly stated by law [3], are economically conditioned, in the sense that they give citizen access to what is compatible with the sustainability of health services and the macro-economic balance of the country. In other words, in each jurisdiction the health service offers its “members” levels of protection commensurate with the resources at its disposal.

This conditioning has been counterbalanced in the legal field by the principle that there is an essential core of the right (to health protection), considered irreducible by the legislator [4].

How to frame such “essential nucleus” remains however a debated question, since the

satisfaction of the needs is tied to the supply of services. Moreover, these services imply a cost (in this case, first of all financial one), which makes the problem of having sufficient economic resources unavoidable.

This fact confirms, therefore, that Health and Economy are "inseparable". The slogan «rationalize not to ration», coined in the 1990s in support of the reform of the Italian National Health Service (I-NHS), and that referred to health services, remains a clear attempt to "remove" the moment when it becomes necessary to address the (difficult) issue of how sustainable the essential core of law is

In other words, the efficiency of health services has (also) become the way to avoid making (very) difficult decisions, as well as a way to perpetuate healthcare-related Welfare promoted in the twentieth century.

The ethical need to rationalize Health has increased the importance of the micro approach, defined as the Business Administration approach, applied to Health. Despite being much behind compared to other countries, from the 90s onwards also in Italy an important line of economic analysis has developed, and business management (of Health) has probably become a predominant element with respect to the classical themes of Health Economics (macro), as the fundamentals of health consumption choices, agency relations in relations between health professionals and consumers, risk aversion and insurance efficiency, causation relationships between health and development, between health and income, education and health, etc.) [cf. 5]. The academic focus has moved toward the structuring of administered markets, to the efficiency of delivery structures, and, successively, on the management of resources (human and non-human), etc.

The transformation of Local Health Units into (public) health companies is the most evident demonstration of the desire to draw attention to the efficiency of services.

Although, to the knowledge of the writer, an evaluation summary of the 30 years efforts to apply managerial logic to Health has not yet been formulated, it seems difficult to deny that they have had the merit of keeping health services "sustainable" by perpetuating the existence of health-related welfare.

Nevertheless, the application of the micro-economic approach, at least in specific cases such as the Italian one, may have fallen into error or, at least, into a misinterpretation of economic logics. For example, the spending review season, also called of the "linear expense cutting", is now subject to rethinking, and increasingly pointed out as a cause of a retreat of the Italian National Health Service.

In keeping with "observable" examples, we should simply consider the freeze in recruitment that has led to the now widely renowned shortage of staff. In alternative, we could consider the indiscriminate cutting of hospital beds, which has generated significant difficulties in accessing during the pandemic phase.

This aspect can be summarized by pointing out that prioritising the accounting aspect of the balance sheet has generated a trade off between technical and allocative efficiency, which risks producing short-term choices in contradiction with the pursuit of long-term efficiency.

In cultural terms it has also revived the aversion of

some towards the economic approach (renamed by others "economicistic") and the conviction of its immorality or at least a-morality, losing sight of the fact that efficiency implies instead the ethics of maximizing health produced with the available resources.

Before closing these brief reflections on the relationship between Economy and Health (healthcare included) one cannot avoid discussion on the role of the Economy in the event of reaching the point of "difficult choices". It is the right to the protection of health that we are forced to think about.

Although the legal approach seems to deny the existence of a shortage of resources that could conflict with the (essential) right to health protection, the economic approach cannot and does not want to renounce emphasizing that, although the assumption is considered axiomatic, the scarcity is factually incontrovertible. The question is, then, whether the economy can have its say in the event of a conflict between available resources and citizenship rights.

To answer this question it is necessary to broaden the definition of Economics, including in it the distributive elements that also regulate the aspect of equity, for example referring to the definition of economic science attributed to P. Samuelson: «Economics is the study of how people and Society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time and distribute them for consumption now and in the future among various persons and groups of society».

The theme of the distribution of goods and services between people and generations (and Society) brings us into the field of Equity, a field dominated by cultural and value elements, and that undoubtedly remains between Economy and Politics.

Nevertheless (excluding the paradox of null resources) it seems to us that, if (hopefully never) the resources are not sufficient to guarantee to all citizens the services that are part of the essential nucleus of the law, the answer that an Economy, willing to confront the issues of Equity, should give could only be to make choices that reduce the differences of access: in other words, if it were necessary to make choices dictated by the impossibility of guaranteeing the essential in a universal way, the human costs of "no access" should be distributed equally, as suggested by the Rawlsian approach to social justice, with reference to primary goods [cf. 6].

The subject deserves a different kind of study, but it seemed appropriate here at least to include among the issues of the relationship between Economy and Health, the essential one of the government of the equitable aspects, which, moreover, are not universally recognized as a founding element of the economic approach.

In conclusion, in the preceding short reflections, we tried to provide some suggestion of the various economic approaches to the world of Health, starting from the most "macro" ones, to move to the micro-business-oriented ones, to return in conclusion on the equity aspects straddling Economics and Politics.

It has also been tried to argue that the relationship between Economy and Health, but also between Economy and Well-being, is inseparable and in some way primigenial. This does not exclude recognizing that improper uses of

economic logic, can generate contradictions and misunderstandings, with the consequent production of "antibodies" towards the approach.

The solution of potential antinomies must be found in the field of Health Policies, which should always aim to combine the demands (of the different stakeholders) of the health system. The debate on the effectiveness and efficiency of health policies, however, goes beyond the objectives of this contribution.

References

1. Arrow K.J. (1963), *Uncertainty and the Welfare Economics of Medical Care*, «The American Economic Review», vol. 53, issue 5, Dec. 1963, pp.941-973.
2. Friedman M. (1975), *There's No Such Thing as a Free Lunch*, Open Court Publishing Company, U.S.
3. D.lgs. 502/1992.
4. Corte cost., sentt. n. 309/1999, n. 252/2001, n. 354/2008, n. 282/2002.
5. Phelps C.E. (1992), *Health Economics*, Harper Collins, New York.
6. Rice T. (1998), *The Economics of Health Reconsidered*, Health Adm. Press, Chicago.