

*cost-effective
healthcare*



Cutting Budgets or Investing in Health?

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In the current economic situation, the voices pushing for budget cuts in healthcare are louder than ever. It is simply something we cannot escape: Everyone must contribute and search for savings potential. But other voices claim that the current economic conditions require investment more than ever. Keynesian economics teaches us in simple terms that investment and belief in the future help to relaunch economies. Hence, according to these voices, governments – and in particular, health authorities – should invest even more in healthcare. Isn't this confusing? What should be done? Should we invest or try to save money? The answer is again simple: Both – and as much as possible. First of all, what we really should aim to do is find the best possible way to utilize the available financial resources. In order to apply economic thinking to healthcare, one should view the health sector as a productive sector, whose aim is to produce health by ensuring that people live longer and more healthily. And since "productive" goes hand-in-hand with "productivity," society must try to gain as much health as possible with the available means. Therefore, priority must be given to those healthcare interventions (both preventive and curative) that result in the greatest amount of return health-wise, for the money that is invested. In other words, we should invest in cost-effective care. The top five goals to achieve this would include:

- 1) Cost-effective new technologies and drugs
- 2) Prevention programs for lifestyle improvement (healthy nutrition, physical activity, stopping tobacco use, etc.)
- 3) Better coordination of care

4) Evidence-based medicine

5) Better access to care for all

These five goals require investing money, but they are necessary to improve the health of our populations.

Let's take the first goal. If we want to produce more health with the available (financial) resources, then we must allocate the money to those interventions and programs that produce the most health benefits per invested euro or dollar or pound; that is, to the programs that are most productive and efficient. Money can only be spent once, and if we don't spend it wisely, we miss the chance to do better things with that money. This means choosing new technologies that may require a strong investment but that also proportionally lead to an important health gain.

Unfortunately, many policy- and decision-makers do not apply this principle and tend to fall back on linear savings, which may have short-term benefits (so-called "quick wins"), but ignore the long-term goals of healthcare policy. For example, several managed care organizations (MCOs) in the USA have only looked at costs and not at effectiveness for years. They simply did not understand that focusing on cost alone leads to poorer health outcomes overall, which in turn is negative for the economy. But can you blame them? The way the U.S. health system was functioning all of that time, MCOs were automatically driven by profit increase, with short-term cost focus as a consequence. But this has nothing to do with quality or optimal care delivery. What the USA needs is decision-making based on cost-effectiveness analyses and health technology assessment. In such analyses, the best evidence regarding a technology (which may be a device,

a drug, or a preventive program) is collected in order to provide information on its costs, its health effects, and the (potential) savings induced by this technology. Health effects are preferably expressed in QALY (quality-adjusted life years), a parameter that combines both life expectancy and quality of life. More and more studies are available providing information on the ratio between the costs and QALYs of health technologies, and increasing numbers of decision-makers are aligned with these concepts [Fig. 1].

The U.K. presents a good example with NICE, the National Institute for Clinical Excellence. Here, new technologies are assessed and appraised using criteria such as added therapeutic value and cost-effectiveness. The use of new technologies and pharmaceutical drugs is encouraged, even if they do not lead to savings, but if their cost can be justified by the amount of health (mostly expressed in QALYs) that is gained through their

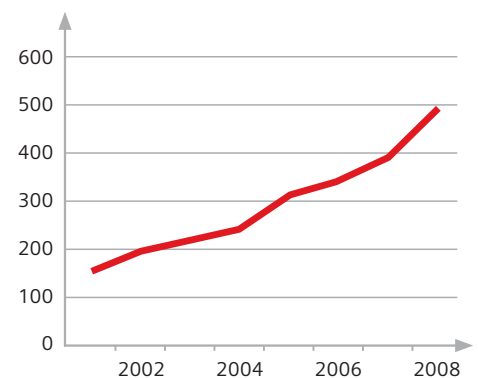


Fig. 1: Number of scientific papers reporting on cost per QALY of health technologies

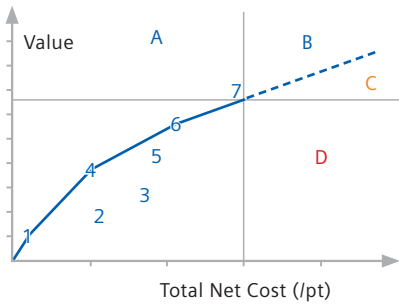


Fig. 2: The efficiency frontier concept. To assess the cost-effectiveness of a new treatment alternative, and in case there is more than one existing intervention on the efficiency frontier, the simplest approach is to extend the last segment of the theoretical efficiency frontier into the decision zone. This last segment (the line between 6 and 7 in the figure) reflects the lowest incremental efficiency on the existing theoretical efficiency frontier. The projected line segment (dotted line) indicates the maximum price that would be consistent with information available in the current market. Prices above that would imply accepting a lower efficiency and thus, would require added justification (zone C). The provider would need to give good reasons for not being able to meet the efficiency implied by existing interventions and the decision-makers would have to consider whether these sustain the proposed price. On the other hand, new interventions appearing in zones A and B are considered more efficient than current care.

use. However, NICE's approach is also subject to criticism. Those who think that NICE is too strict argue that the full societal value of new technologies (e.g., avoiding absenteeism) is not accounted for, and that elements such as medical need are also not taken into account. Others argue that NICE is too tolerant of new and expensive technologies, but these are – not surprisingly – the same people who tend to forget about the goals of healthcare.

In Germany, the goal of an economic evaluation is to address the ceiling price at which a superior health technology in a given therapeutic area should continue to be reimbursed. To answer this question, the German Institute for Quality and Efficiency in Healthcare (IQWiG) has developed the efficiency frontier concept [Fig. 2]. The efficiency frontier plot is a graph of the value of health effects (on the vertical axis) provided by available interventions in a given therapeutic area against the net costs (on the horizontal axis) of providing these. The efficiency frontier line itself connects interventions on that plot in such a way that none of the points on the line indicates

worse efficiency than any other point on the frontier. In other words, this approach does not look for costs per se, but rather for optimal cost-effectiveness ratios within a given disease area. In the figure, the points on the frontier are treatments 1, 4, 6, and 7. How much should be spent on a given disease area should be established by societal values and medical need. The latter is, however, not yet worked out clearly in the German context.

I mentioned lifestyle interventions as well. More and more studies show that such interventions are very cost-effective. Hence, they require greater investments.

Regarding equal access, international bodies such as the Organization for Economic Cooperation and Development (OECD) also emphasize that an effective health policy must not only aim to be efficient (i.e., spend the available means as well as possible), but should also guarantee equality (i.e., everyone who has the same health needs should be able to obtain the same care). Even non-altruists should understand that inequality leads to enormous societal losses (even

Facts & Figures

Regarding Lifestyle

At least two-thirds of the adult population in the European Union are estimated to be insufficiently physically active for optimal health benefits. Initiatives designed to increase physical activity are therefore urgently needed.

Current recommendations on physical activity that enhance health suggest that half an hour of moderately intense physical activity on most days of the week yields major health benefits for inactive populations. For effective prevention of being overweight and obesity, up to an hour of such daily activity is recommended.

Regarding HTA

Health Technology Assessment (HTA) is a multidisciplinary process that summarizes information about the medical, social, economic, and ethical issues related to the use of a health technology in a systematic, transparent, unbiased, robust manner. Its aim is to inform the formulation of safe,

effective health policies that are patient-focused and seek to achieve the best value.

INAHTA (The International Network of Agencies for Health Technology Assessment) was established in 1993 and has now grown to 46 member agencies from 24 countries. The network stretches from North and Latin America to Europe, Asia, and Australasia. Its mission is to provide a forum for the identification and pursuit of interests common to health technology assessment agencies.

Regarding Inequity

The number of deaths that can be attributed to health inequalities in the European Union in 2004 is around 700,000 per year. This amounts to a loss of 11.4 million lifeyears. The number of cases of ill health is estimated at 33 million. Health inequalities also reduce life expectancy at birth by almost two years, and the average life expectancy in good health by almost six years.



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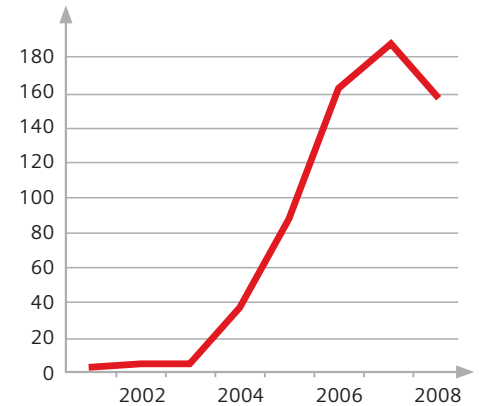


Fig. 3: Number of scientific papers related to pay-for-quality initiatives.

more than a disease such as obesity), from which the entire population, themselves included, suffers. Now consider this: If all of the above requires additional investments, where will we obtain the money to do this? Most of all, by avoiding waste. Too often, drugs are used, surgeries are done, and diagnostic tests are carried out on patients who do not need them. The main reasons for this waste are the inability of some healthcare providers to do what is scientifically justified, as well as the predominant payment system – the so-called “fee-for-service” system – whereby the more physicians do, the more they get paid. Regarding the first reason, there is now a trend toward applying evidence-based medicine (i.e., only accepting treatments and diagnostic tools in those circumstances where they have been proven to be efficient and cost-effective). Of course, scientific evidence cannot be the only criterion for use. Contextual aspects also need to be taken into account, and exceptions to strict medical guidance must be allowed for. Never-

theless, the introduction of the evidence-based approach should lead to less waste if the right payment systems are applied. Therefore, we need to reduce the use of the “fee-for-service” system. The alternative, now practiced in many countries, is the prospective payment system, whereby a fixed payment is used to treat a given type of patient. Here again, however, we risk that there will be an underuse of care (since the payment is fixed, there could be a financial interest to make minimal effort). A way out may be a “pay-for-quality” system. In this approach, now already practiced in the U.K. and in some U.S. initiatives, those who deliver (cost-) effective care are rewarded; the others are not. A great amount of scientific literature related to this concept is emerging [Fig. 3]. The increasing use of its principles, taking into account the available evidence regarding this approach, together with penalizing waste, can help governments find the necessary money to invest in cost-effective programs and treatments that are really needed.

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