

DID WE FOLLOW THE RIGHT APPROACH IN ECONOMIC EVALUATIONS BY DISCOUNTING HEALTH GAIN?

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INTRODUCTION

- Discounting health gains and costs is routinely applied in health economic evaluations. This has caused debates about the appropriate discount rates and whether the discount rate applied to health gains should be equivalent or lower than the one applied to costs.¹⁻⁵

OBJECTIVE

- Instead of debating about the appropriate level of discounting health gains versus costs, we ask a different question: **Are health gains suitable for being discounted like costs?**

METHODS

- We applied a hypothetical-deductive approach to identify situations where discounting health gain leads to paradoxical situations (Figure 1).
- We stipulated that:
 - Health gains are not a medium of exchange that can be easily swapped into different goods through trading (as money for example).
 - Trading is a necessary condition for implementing valuable discounting.

RESULTS

Why is cost/money discounted?

- Discounting determines the present value of payments planned in the future using a discount rate. Discounting accounts for the fact that money has a time value, being worth more today than tomorrow.
- It also characterizes agent preferences about costs, costs being even more depreciated the further into the future they are.
- It captures the best return on investment obtained over time expressed in money in an objective way.
- The monetary discount rates are defined by financial market regulations of lending money through central bank institutes.
- Consequences: discounting or changing the value of money over time is performed through a process of monetary policy under national and international scrutiny. Discounting money can't be done back in an obscure corner.

Normal consumer trade markets?

- Some goods are bought by consumers because they are perceived by consumers to produce sustained output of equivalent value over time.
- It is not expected by the consumer that those outcomes should systematically devalue over time unless some depreciation or erosion may happen (e.g., machinery, cars, etc.).
- However, when buying that good the seller may offer some guarantees of appropriate working over a certain period.
- This is applicable for all categories of helping instruments/goods in our daily living like fridges producing cold temperatures, coffee machines producing coffee, batteries producing energy, cars producing travel distances, and so on.
- The list is immense but the output each of them delivers is never presented under discounted regulations.
- So, as consumer we devalue a product but not the value this product will bring us over time (Figure 2).
- If those outcomes should be shown with discounted values, it is likely that most consumers may not understand what it would mean to them and may ask questions how the discounting rules of the outcome should have been applied based on what criteria (cf. money discounting rules).
- Consequences: discounting the output of consumable goods is not done and there is no incentive to do so.

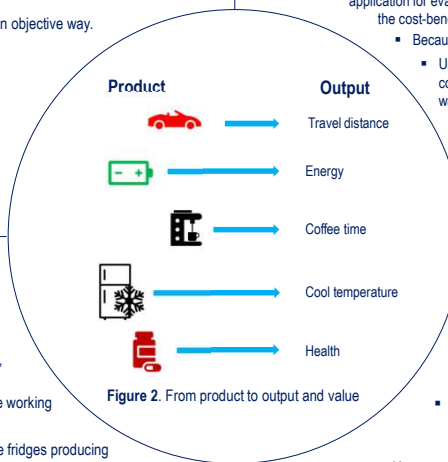


Figure 2. From product to output and value

CONCLUSION

- We are currently applying a technic of discounting health gain without referring to what is done on outcome evaluations of normal economic assessments of production processes. It creates many paradoxical situations in health economic analyses.
- Discounting health may not get any support from the healthcare community: they don't intervene now for recovering health loss, if they know that future health gains should be devalued because of their intervention, rather the opposite motivates their action.
- It should be assessed through discrete choice experiment surveys what people understand and experience discounted health value and discounted output of consumable goods.

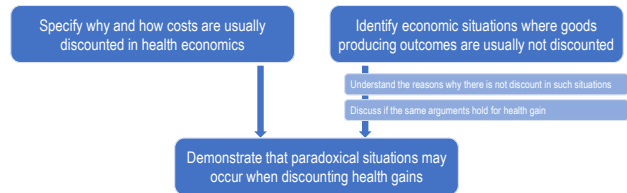


Figure 1. Hypothetical-deductive approach

Discounting health gain, why?

- Health should be considered as being an outcome/output of a production process of living organisms. Without a living organism, no health is produced.
- It is expected today that once live is present it will have a sustained output of quality health that under normal circumstances of quality living might reach on average around 77 healthy years in Belgium; no discount is applied on that value.⁶
 - However, history indicates that when economic evaluations in healthcare were first performed, the methodological application for evaluating the economic value of new interventions that gain quality health lost, was first using the cost-benefit analysis where the benefit was expressed in money terms.⁷
 - Because of the money entity, rules of discounting were applied.
 - Until it was found difficult to correctly express the health gain in money terms and a switch to cost-effectiveness was made, keeping however the rules of discounting on the health gain as if it was tradable and experienced by the consumer/patient as money does.
 - Here is the trick: when the fridge gets a repair to keep its temperature sustained, is the outcome gain of that repair discounted? If quality health is repaired after a certain loss, must the gain be discounted after the intervention?
 - What should justify that discount? The preference we have for now compared with the future? If health is hampered now, it is expected that the reparation will automatically benefit the future as well. Why should we discount that future?⁸
 - New interventions that guarantee longer health gain repairs, are penalized by discounting the longer they sustain health gains compared with interventions for a same indication with a shorter health gain benefit.
 - The preference health gains of now compared with the future ones are fixing a short-term vision of the benefit generated by interventions when discounting health gains.
 - However, we all know that for the currently most prevalent diseases -the chronic ones, as the word is saying chronic means long duration-, the benefit should go for long-term, while discounting focuses on short-term.
 - The more we are all experiencing longer time living, the more we attach higher value to longer quality living. That are our expectations. Discounting health gain annihilates that perspective that has only a view on present now.

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