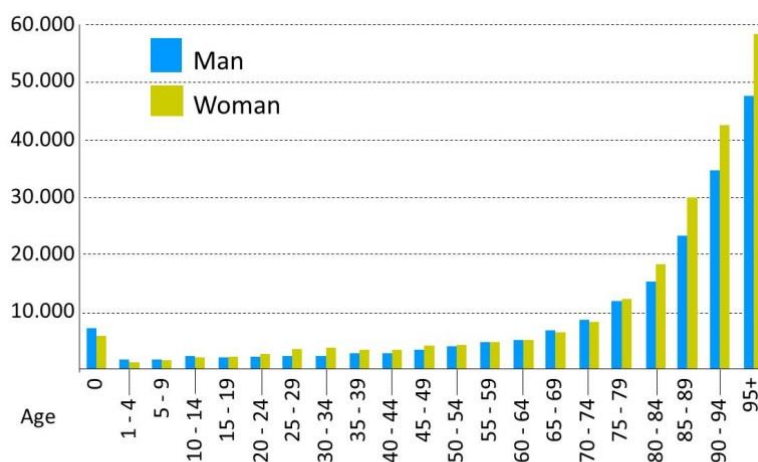


# You are worth the prize

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In health care costs rise sharply in the Netherlands. In the Dutch magazine Elsevier of 22 September one could read that on average we live longer in the Netherlands (as in other western countries) and that is a great thing. 'More is not always better' was the title of the article. This is the link to the rising average life expectancy and the downside, namely that health care costs rise with age. As response in the article the question is asked whether there should not be a maximum amount for the additional life expectancy of the patient. The subject is sensitive, as the guru in the field of risk perception Paul Slovic already stated: 'there is no market where people sell their life.' Because there is no market, other methods are needed. In this column I discuss the topic of the valuation of human life.



Source: Elsevier. Health care cost versus age

The relationship between the cost of care and the age in the Netherlands can be seen here (source: Elsevier, 22 September 2012). In the last year of life costs are on average fifteen times higher. The question is asked whether there should be a financial limit.

For physicians, it is understandably difficult to decide that a patient should not be treated anymore. People who work in health care would like to heal someone and they are not trained to help someone in the

process of dying, according to the article. In Elsevier it is also stated that in the U.S. 30% of the treatments is meaningless. Therefore I think it is good to look critically at the cost development.

For ethical reasons, the discussion of a maximum amount per additional year of life is a taboo and there is no position taken in the Netherlands. It of course greatly matters whether it deals with a named or unnamed person. This is also an explanation for the behaviour of people who work in health care: the patients are named people for the doctors, but for the insurance the patients are unnamed. In the United Kingdom there is a position. According to Elsevier, the treatment which leads to an extra year of life in good health is allowed to cost a maximum of 37.000 euros per year.

First some more figures. Strictly spoken, there is no monetary value to human life<sup>1</sup>. When we decompose a human being in resources (70% water) and purchase the raw materials, the value would only be a few euros. But that's nonsense. In the U.S. the following is used in health care. If the treatment costs more than \$ 50.000 and does not have the guarantee for an additional year of 'quality life', then the treatment is not given. A new study from Stanford University shows that this amount is too low. The economist Professor Zenios and his colleagues at Stanford University calculated the amount based on experiences with dialysis. Zenios studied for more than half a million patients what the treatment had cost and with what result. Taking inflation and new technologies into account they came to an amount of \$ 129.000 (about 82.000 euros) for a life year in quality<sup>2</sup>.

<sup>1</sup> Perceptions of Risk posed by extreme events. P. Slovic and E.U. Weber. Presented at 'Risk management Strategies in an uncertain world', New York, 2002

<sup>2</sup> [http://netto.tijd.be/budget\\_en\\_vrije\\_tijd/wellness/Wat\\_is\\_een\\_mensenleven\\_waard.7396212-2217.art](http://netto.tijd.be/budget_en_vrije_tijd/wellness/Wat_is_een_mensenleven_waard.7396212-2217.art) (in Dutch)

In the Netherlands, in 2006 the Health Council presented a proposal. If a treatment costs more than 80.000 euros for an extra year of life quality to a patient, then that treatment should not be reimbursed by the basic health insurance. This however is not a hard criterion. Justice may nevertheless decide to reimburse more than the 80.000 euros. And because it is difficult for physicians to decide not to treat a patient at a given time no longer, this limit is quite often exceeded with increasing costs as a result. The amount of 80.000 euros comes very close to the \$ 129.000 that Stanford calculated<sup>3</sup>. With roughly an average life expectancy of 80 years, this means 6,4 million Euro for a lifetime of a human being. Other agencies in the U.S. which apply roughly similar amounts are Environmental Protection Agency (\$ 6,9 million), the Food and Drug Administration (\$ 7,9 million) and the Transportation Department (\$ 6 million)<sup>4</sup>. The industry has come with a standard of about 10 million euros for the loss of human life<sup>5</sup>. When an American soldier is killed in Iraq or Afghanistan, then the family receives a fee of \$ 500.000. Compared with the figures just mentioned it seems than a mere palliative. While I have the suspicion that if in the past astronauts would be stuck on the moon with a broken spacecraft, one would send another spacecraft to receive the astronauts. The costs are then about 10 billion for 3 people.

The government actually is an asset manager and stakeholders in our country would like to see, as in the industrial sector, a maximum added value per euro invested. A general principle is that you can spend money only once. It is therefore important to have the discussion about what should be the maximum amount spent per extra quality life. A short (fictional) example to put it in perspective.

According to the Statistics office CBS in Netherlands we had 661 fatalities in traffic in 2011. Suppose that the average victim would have a remaining life expectancy of 30 years (note that the victims are not evenly distributed across the age; relatively many elderly people are killed in traffic). Suppose an investment of 500 million euros which would reduce the number of victims with 100 per year structurally. This implies 5 million euros per victim per year, which on average has another 30 years to live. So about 160.000 euros per year of life. When the limit of 80.000 euros would be set for healthcare, in this fictitious example you better invest the scarce resources in the health sector (where the maximum is less than 160.000). It is not a simple question. As previously written it is more easily to link an amount to an unnamed person ('preventing a casualty is worth 10 million') than to say 'we are not allowed to exceed amount x for an additional year with quality for person y'.

Nevertheless, I believe we have to perform this discussion. Isn't it worthwhile to invest where the best result is achieved? The result provides concrete suggestions for many sectors where unfortunately people are killed. So not only in health care, but also for example in traffic, in construction work and for the asset intensive sector. We can learn for example from the United Kingdom. Not the question should be asked how much a man is worth, but how much is it worth for avoiding a victim. Because basically everyone is worth the prize.

And of course a human life can not be replaced by a certain amount of money.

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<sup>3</sup> <http://www.trouw.nl/tr/nl/4324/Nieuws/archief/article/detail/1684959/2006/06/28/Meer-dan-80-000-euro-Niet-vergoeden-rsquo-Grenzen-stellen-aan-kosten-per-patient-rsquo.dhtml> (in Dutch)

<sup>4</sup> [http://www.en.wikipedia.org/wiki/value\\_of\\_life](http://www.en.wikipedia.org/wiki/value_of_life)

<sup>5</sup> Y.C. Wijnia and R.J.M. Hermkens, "Measuring safety in gas distribution systems"