

dition, there is a concern about dependency and the need for help from others. In general, mortality within 1-year due to vertebral fracture is 7.0% in patients older than 50 years.

Vertebral fractures after 6 months (post-vertebral)

Six months have passed since you experienced a vertebral fracture. You have recovered from the fracture. You have regular monthly visits to the hospital to check for osteoporosis and fracture sites. Spinal fractures are characterized by multiple occurrences. Approximately 6.6% of patients with vertebral fractures are known to experience additional vertebral fractures within 1-year. If you have had a vertebral fracture for the first time, your condition after 6 months allows you to live daily life, and there is no other discomfort. However, after the second fracture, there is pain and difficulty in daily life even after recovery. There is fear of falling accidents and additional fracture.

Supplementary Appendix 2. Person trade-off (PTO)^{1,2}

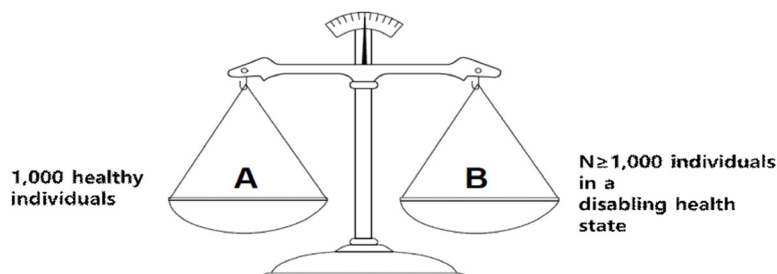
PTO 1: A thought experiment in which you trade-off life years of healthy people for life years of individuals who are not in perfect health

Imagine the following: You are a decision maker. You have exactly enough funds for a single health intervention. You have a choice between 2 mutually exclusive health interventions. If you opt for intervention A, the life of 1,000 individuals will be extended by exactly 1-year. After that year they will all die. If you do not choose this intervention, these people will all die immediately.

Alternatively, your scarce funds may be used to purchase health intervention B. Opting for B means that the life of N individuals in the less than perfect health state X would be extended by exactly 1-year. After that year, they will all die. Not choosing intervention B means that the persons in health state X will all die immediately.

Example: The choice is in the first instance between 1-year of life extension for 1,000 healthy individuals (intervention A) and 1-year of life extension of 2,000 blind people (intervention B). If you opt for B, you will be faced with a new choice in which the number of blind individuals whose life can be extended with intervention B is reduced to, i.e., 1,500. If you decide to purchase A, the number of blind individuals will be raised. This process of choosing is continued until you are no longer able to make a choice between the 2 interventions: your indifference point.

In summary: PTO 1: the number of individuals in health state X for whom 1-year of life extension is equal in your eyes to 1-year life extension for 1,000 healthy individuals. The number is always bigger or equal to 1,000.



¹We refer to the PTO 1 and 2 form in the following paper and translate it into Korean (Stouthard MEA, Essink-Bot ML, Bonsel GJ, et al. Disability weights for diseases in the Netherlands. Rotterdam, the Netherlands: Department of Public Health, Erasmus University Rotterdam, the Netherlands; 1997).

²Six health statuses including osteoporosis and hip, vertebral, post-hip, post-vertebral, and wrist fractures used the same PTO form above.

A PTO 1 of 1,000 implies that you value the given health state A as equal to 'perfect health'. A PTO 1 of 1,000,000 (1 million) means that you value the given health state X as extremely bad. Your PTO 1 valuations may be anywhere between these 2 extremes.

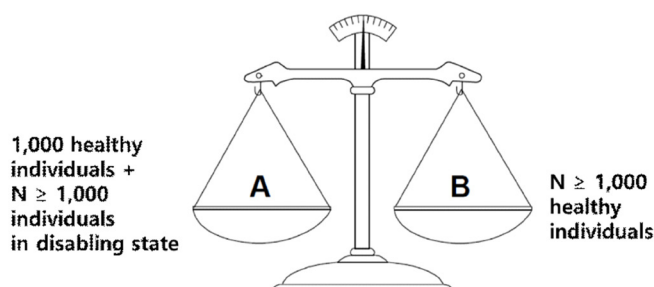
PTO 2: Make a trade-off between life extension for healthy individuals and an improvement in the quality of life of individuals in a disabling health state³

Imagine the following: You are a decision maker. You have exactly enough funds for a single health intervention. You have a choice between 2 mutually exclusive health interventions. If you opt for intervention A, the life of 1,000 individuals will be extended by exactly 1-year. After that year they will all die. If you do not choose this intervention, these people will all die immediately.

Alternatively, your scarce funds may be used to purchase health intervention B. With intervention B, N individuals in health state X will undergo a complete recovery. Intervention B will allow them to live for 1-year in perfect health. After that year, they will all die. If you choose not to purchase intervention B, they will live for 1-year in health state X, after which they will all die. A decision maker purchasing intervention B trades-off 1,000 healthy life years for the full recovery of N individuals in health state X.

Example: The choice is in the first instance between 1-year of life extension for 1,000 healthy individuals (intervention A) and the full recovery of 2,000 blind people (intervention B). If you opt for B, you will be faced with a new choice in which the number of blind individuals able to regain perfect health with intervention B is reduced to, i.e., 1,500. If you decide to purchase A, the number of blind individuals who regain their sight will be raised. This process of choosing is continued until you are no longer able to make a choice between the 2 interventions: your indifference point.

In summary: PTO 2: the number of individuals in health state X for whom a complete recovery, followed by 1-year of perfect health is equal in your eyes to 1-year life extension for 1,000 healthy individuals. The number is always bigger or equal to 1,000.



A PTO 2 of 1,000 implies that you value the given health state X as equal to 'perfect health'. A PTO 2 of 1,000,000 (1 million) means that you value the given health state X as extremely bad. Your PTO 2 valuations may be anywhere between these 2 extremes.

³Six health statuses including osteoporosis and hip, vertebral, post-hip, post-vertebral, and wrist fractures used the same PTO form above.