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Photo: Espen Røysamb

Norwegians are the happiest people in the world.

## Happiness and health

«Imagine a ladder with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?»

The answer to this question forms the basis of the *World Happiness Report 2017*, which recently named Norway the world's happiest country (1). We stand between the seventh and eighth step, with a score of 7.54. It is a close race near the top: 11 countries, including all of Scandinavia, are bunched together in the high sevens. The global average is 5.31, while Burundi (2.91) and the Central African Republic (2.70) are almost at the bottom.

The difference between the countries is explained on the basis of six factors, with GDP per capita, social support and health contributing the most. Economy is twice as explanatory as health when it comes to the difference between the ten lowest and ten highest-scoring countries (36% versus 18%). However, happiness can be sustainable: Costa Rica's ecological footprint is five times lower than that of the USA, but it is equal to the USA in terms of happiness (2).

The *World Happiness Report* measures how we assess our own lives. Research on happiness and quality of life distinguishes between three subjective measures: satisfaction with life, positive emotions and perception of meaning (3). Different factors affect these measures differently; the Nobel prize winner Daniel Kahneman has demonstrated that while how we assess our lives is largely influenced by income, our health and health behaviour have a stronger correlation with positive emotions (4).

Happy people live longer and have better health. A study of Danish identical twins over a period of 70 years showed a 10% reduction in mortality for each standard deviation increase in self-reported positive emotions (5). Studies of this type are considered to be good indicators of causal associations, because twins are compared within pairs, thereby removing associations that can be attributed to genetics and the environment in which they are raised. Positive emotions appear to be especially important among older people (6) and function as a protective factor against cardiovascular diseases. The authors of a study published in the *European Heart Journal* followed almost 2 000 persons for ten years and their article was aptly titled *Don't worry, be happy* (7). Even after adjusting for symptoms of depression, there was a clear correlation between positive emotions and the prevalence of cardiovascular diseases (7).

Can positive emotions have a direct, biological effect on health? Last year the results were published of the largest-scale study until now of the association between happiness and years of life. Among more than 700 000 middle-aged women, those who were essentially unhappy for most of the time had a 40% higher probability of dying during the observation period (8). However, the effect disappeared after adjusting for self-perceived health. The authors therefore con-

cluded that the entire association between positive emotions and mortality is due to the effect of health on mood, and not vice versa.

When the American social critic and author Barbara Ehrenreich developed breast cancer, she heard – also from healthcare professionals – that if only she kept her spirits up and thought positively, things would be fine (9). Or conversely: if she *did not* see her illness as a unique opportunity for self-development, she would only have herself to blame if she did not «win the battle». Ehrenreich reviewed the scientific literature and found nothing to suggest that her mood would affect the cancer (9). Before her rage subsided, she wrote the book *Smile or Die* (9), in which the pressure to be happy was blamed not only for unnecessary self-reproach among cancer patients, but also for the financial crisis of 2008. The book provides an exceptional insight into a culture which has little tolerance for negative emotions, and where responsibility for one's own health is carried much too far.

The Norwegian Directorate of Health believes that regular measurements of the population's self-perceived quality of life are needed (10, 11). Why do we need these, when we are already the happiest people in the world? The results from the *World Happiness Report* show that 80% of the variation in happiness stems from variations within countries. In Norway we have good data on morbidity, but we know less about what promotes good lives (11). In 2011, the health authorities in the UK launched the project «five ways to happiness», based on academic studies of how individuals can increase their own level of happiness: Connect with the people around you, be physically active, keep learning, give to others, and be mindful (12). This advice overlaps in part with advice intended to strengthen physical health, and is similarly uncomplicated. Whether it is easier to follow remains to be seen.

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