Nordic Council of Ministers

ANALYSIS NO. 01/2018

IN THE SHADOW OF HAPPINESS

People in the Nordic region are generally happier than people in other regions of the world, but despite this there are in fact also people in Denmark, Finland, Iceland, Norway and Sweden who report to be struggling or even suffering. This report investigates who is unhappy in the Nordic countries, and the circumstances of life that lie behind this.

In the Shadow of Happiness
Ulf Andreasson

ANP 2018:799
ISBN 978-92-893-5739-5 (PRINT)
ISBN 978-92-893-5740-1 (PDF)
ISBN 978-92-893-5741-8 (EPUB)
http://dx.doi.org/10.6027/ANP2018-799

Layout: Mette Agger Tang/Jette Koefoed
Photos: Unsplash.com
Print: Rosendahls

Printed in Denmark

5041 0457
Ecolabelled Printed Matter

Nordic co-operation
Nordic co-operation is one of the world's most extensive forms of regional collaboration, involving Denmark, Finland, Iceland, Norway, Sweden, the Faroe Islands, Greenland, and Åland.

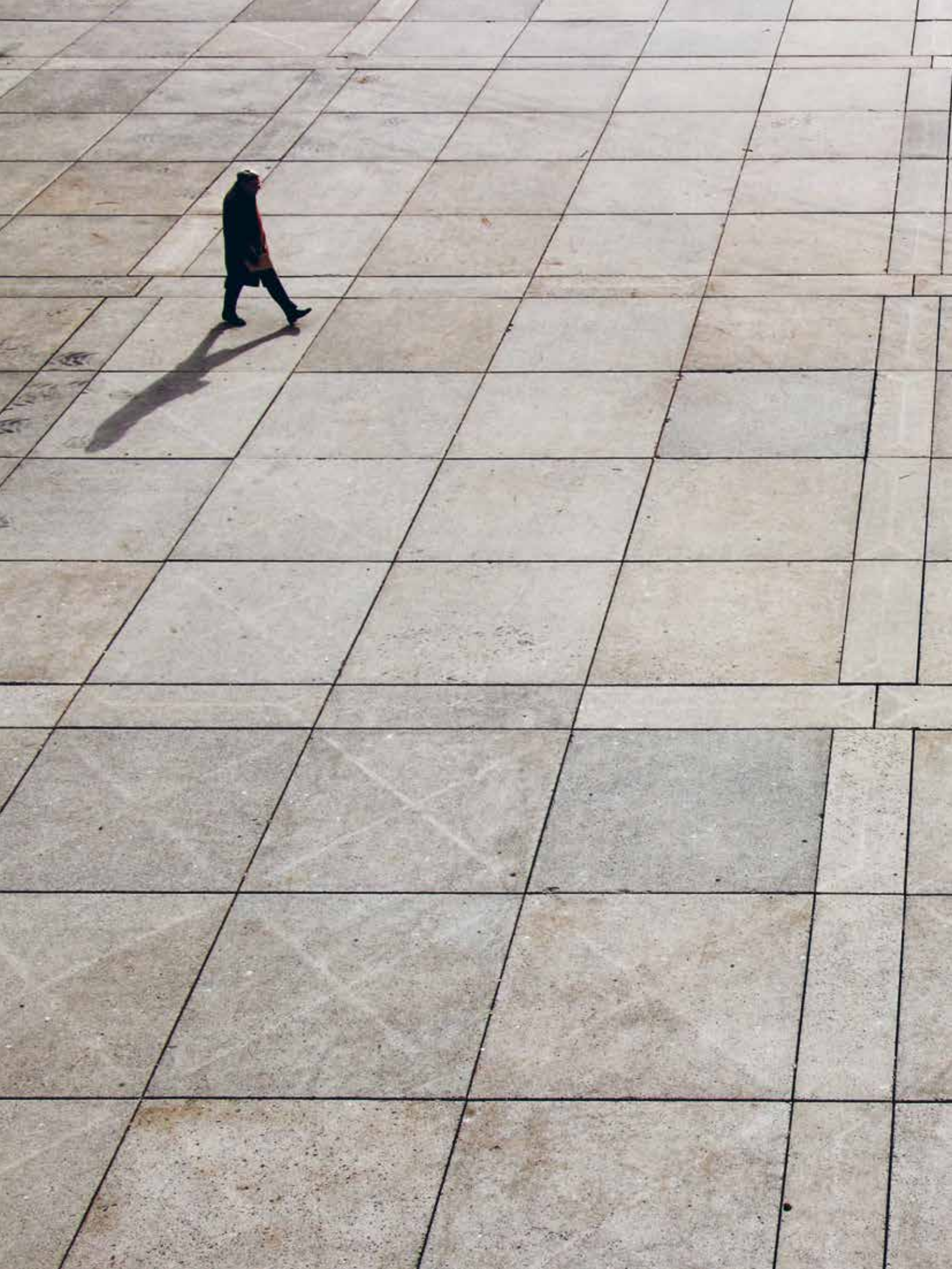
Nordic co-operation has firm traditions in politics, the economy, and culture. It plays an important role in European and international collaboration, and aims at creating a strong Nordic community in a strong Europe.

Nordic co-operation seeks to safeguard Nordic and regional interests and principles in the global community. Shared Nordic values help the region solidify its position as one of the world's most innovative and competitive.

Nordic Council of Ministers
Nordens Hus
Ved Stranden 18
1061 Copenhagen K
www.norden.org

Download Nordic publications at www.norden.org/nordpub

IN THE SHADOW OF HAPPINESS



Contents

7 Foreword

8 Summary

11 Introduction

14 The less happy Nordic region

17 The anatomy of unhappiness

28 Consequences of unhappiness

31 The Nordic perspective

32 Bibliography

34 Appendix 1: Method

36 Appendix 2: Analysis

41 Appendix 3: Probability of experiencing symptoms of depression in the case of unemployment

For several reasons, it is a good idea to discuss how to reduce the number of people who find themselves to be struggling or suffering.

Foreword

This report is about happiness in the Nordic region. However, it differs from other reports and articles in recent years, which have been practically unanimous in claiming that people in the Nordic region are happy. It is certainly true that we, in this region, are happier than people in other regions of the world – for the vast majority, the Nordic countries are good places to live. However, this does not mean that every single individual is happy. There are also those who report to be struggling or even suffering when they evaluate their own lives.

The overall aim of this report is to provide a more nuanced picture of "the Happy Nordic region", and to learn more about those in the Nordic communities who report to be unhappy. In addition, the report provides an indication of the reasons why happiness is so unevenly distributed.

For a long time, welfare and quality of life have been measured using various economic indicators. Gross domestic product, in particular, has been the prevailing measure. In recent years, however, other ways of measuring welfare have attracted attention with, in particular, an increasing interest in indicators of subjective well-being.

It may not be the responsibility of states and civil societies alone to ensure that all citizens are happy, but for several reasons it is a good idea to discuss how to reduce the number of people, who find themselves struggling or suffering.

The report is mainly authored by Michael Birkjaer from the Happiness Research Institute, at the request of the Secretariat to the Nordic Council of Ministers. It has been edited by Ulf Andreasson and Truls Stende at the Secretariat's Policy Analysis and Statistics Unit. The report is part of a series produced by the unit that highlight current topics from a Nordic perspective.

Copenhagen, May 2018

Dagfinn Høybråten
Secretary General
Nordic Council of Ministers

Summary

Since 2012, both the UN and the OECD have chosen to record progress in well-being, in addition to gross domestic product (GDP), as a measure of a country's level of welfare. Studies of happiness rely on asking people about how they feel, rather than drawing conclusions on the basis of their income levels.

This report is about both happiness and unhappiness in the Nordic countries. The study shows that in this region of the world we are indeed happier than people of other regions; but there are also those who, when evaluating their own lives, report to be struggling or even suffering. This report analyses, which factors are the most significant in determining why some people in the Nordic region are happy, while others are not. We also map the characteristics of people who are struggling or suffering.

In the five Nordic countries it is the norm for people to report 7, 8 or 9 when evaluating life satisfaction on a scale from 0 to 10. A value of less than 7 can therefore be seen as a deviation. From a Nordic perspective, it therefore makes sense to use the following three categories for subjective well-being:

Thriving: Those who score between 7 and 10
Struggling: Those who score between 5 and 6
Suffering: Those who score between 0 and 4

In this report, these three terms are used to describe the subjectively experienced degree of happiness or unhappiness.

The analysis includes common demographic variables such as gender and age. In addition, we test for the circumstances of life that are most closely associated with struggling and suffering in the Nordic countries, such as lack of social contact, poor mental health, poor general health and unemployment.

The underlying reasons why someone is struggling or suffering are of course unique to that person. However, the results across the Nordic countries show that there are many systematic concurrences and similarities, which may indicate that there are also certain social structures that adversely affect people's lives.

The main conclusions of the study are:

- **Happiness is unevenly distributed in the Nordic countries.** A great many people in the Nordic countries experience a high level of well-being, but at the same time, 12.3 percent of the total population in the Nordic region are struggling or suffering.

- **A significant proportion of young people are struggling or suffering.** In the 18–23 age group, 13.5 percent are struggling or suffering in the Nordic countries. A higher proportion is found in only one other age group, namely those over 80 years of age.

- **Inequality in well-being in the Nordic region correlates strongly with inequality in health.** General as well as mental health is much more closely associated with inequality in well-being than other circumstances of life, such as employment or income levels.

- **General health ranks highest on the Nordic list of life circumstances most closely associated with being unhappy.** In this respect the Nordic countries deviate from the United States, Australia and the United Kingdom, where mental illness tops the list. In the Nordic region, it is predominantly older people who experience failing health.

- **Mental health is the second most important circumstance of life associated with happiness and unhappiness.** Problems of mental health most often affect young people, particularly young women. The proportion of young people who feel depressed varies between the Nordic countries, but the overall pattern is that young women are more often affected than young men. A rise in poor mental health has also been observed in recent years among young people generally, both women and men.

- **Top incomes protect against dissatisfaction and unhappiness.** Inequality in income ranks as the third most important circumstance of life explaining why some people struggle or suffer, but it is important to note that the effect is only found for the 10 percent of the population in the highest income group – i.e. if you belong to the 10 percent with the highest income, you have less risk of struggling or suffering.

- **Unemployment is associated with struggling and suffering, especially for men.** After poor general health, poor mental health, and income, unemployment is the next most decisive circumstance of life associated with struggling or suffering in the Nordic countries. Struggling or suffering is far more common among unemployed people than among people in employment. Every third person without a job is struggling in the Nordic countries, while this is true of every tenth person among the employed. Well-being issues relating to unemployment apply particularly to men, who are more likely to experience mental health problems when unemployed.

- **Lack of social contact is a greater problem for men.** In almost all age groups, men – particularly older men – are less socially active, which is a factor associated with unhappiness.

- **Very religious people are happier.** In all of the Nordic countries, very religious people are more happy than others. No differences in levels of well-being are observed when comparing atheists and the moderately religious people.

- **Unhappiness is very costly for society.** The fact that a growing number of people are struggling or suffering has socioeconomic consequences. The problem is particularly associated with absence from work due to illness, low productivity and the consumption of health services.

- **Inequality in well-being challenges the high level of trust in the Nordic countries.** Lack of trust correlates strongly with inequality in well-being. If inequality in well-being grows, it could have serious consequences for the level of trust between people as well as for social cohesion.

Introduction

There has been a change in the way we measure well-being, in which we are now more likely to include subjective experiences of happiness and quality of life.

Since the Bretton Woods Conference in 1944, it has been common practice to interpret an increase in a country's gross domestic product (GDP) as the equivalent to an increase in the welfare and development of a country. However, within the past few years a new approach has been adopted to determine the level of progress: Since 2012, both the UN and the OECD have chosen to break with the historic one-dimensional economic approach, and have instead chosen to include progress in subjective well-being as a measure of a country's welfare and development. These calculations are based, inter alia, on the population's subjective experience of happiness and quality of life.

The then Secretary-General of the UN, Ban Ki-Moon, promoted Gross National Happiness as a benchmark for a country's welfare.[1] Similarly, the Secretary-General of the OECD, Àngel Gurría, has pointed out that the ultimate goal for politics should be to increase quality of life for human beings.[2]

When we speak of – and measure – quality of life, a variety of terms are often used: happiness measures, subjective well-being measures, quality of life measures, etc. These concepts overlap, but they can also be perceived in slightly different ways: Most people would probably think of being happy as something rather more powerful and emotional than having a high level of quality of life. It is thus difficult to reduce subjective well-being or happiness to a single phenomenon, which is why happiness is also called an umbrella term – it covers several different concepts.

In international happiness research, there is considerable consensus on distinguishing between three dimensions of subjective well-being:[3]

- Life evaluation: How happy or satisfied you are with life in general.
- Affect: How happy or unhappy you are at the moment or over a brief period of time.
- Eudaimonia: How meaningful you perceive life to be or the extent to which you feel you are fulfilling your potential as a human being.

This report uses a data set drawn from the European Social Survey (ESS), which has asked respondents the following: How *satisfied* are you with life? The responses were given on a scale from 0–10. The definition used in this report thus lies within the first of the three categories – *life evaluation* – which is the most frequently-used and reliable dimension in happiness research, and the dimension that produces the most research results.[4]

In the next chapter, *The Less happy Nordic region*, we will define the concepts of thriving, struggling and suffering, which are used in this report to describe the degree of well-being and happiness as subjectively experienced.

---

1 UN NEWS (2012): *Ban: new economic paradigm needed, including social and environmental progress.*

2 OECD (2017): *Better Life Initiative – Measuring well-being and progress.* http://www.oecd.org/sdd/OECD-Better-Life-Initiative.pdf

3 OECD (2013): *Guidelines on Measuring Subjective Well-being.*

4 Ibid.

The Nordic countries – the happiness superpowers?

The Nordic countries are consistently ranked among the ten happiest countries in the world.

Nordic Countries Are The Happiest In The World writes Forbes Magazine, *Can we be as happy as Scandinavians?* asks the BBC, and *Want to be Happy – Try moving to Finland* suggests the New York Times. The fact that Denmark, Finland, Iceland, Norway and Sweden top the world rankings year after year in happiness, according to the most recognised international rankings, is something that attracts attention and makes headlines.[5] In the latest edition of the UN's *World Happiness Report,* OECD's *Better Life Index* and *Social Progress Index* from The Social Progress Imperative, the Nordic countries are consistently ranked among the top ten countries in the world.[6] See Table 1.

The Nordic countries are also among the world's richest countries, and material prosperity is, not surprisingly, a prerequisite for well-being. But there are countries in the world that are both richer than the Nordic countries and at the same time less happy, as can be seen in Fig. 1. The figure shows the correlation between GDP per capita and happiness level. The red dotted line shows the average correlation; countries above the line are thus happier than would be predicted by their GDP. The Nordic countries are in other words good at converting wealth into well-being, by comparison with the rest of the world. The figures are based on the most recent annual data.

GDP affects the national level of happiness, but all of the Nordic countries perform better in terms of well-being than would be expected from their GDP levels alone.

For the first time, in 2018, Finland has come out top of the list of the world's happiest countries in the United Nations' *World Happiness Report,* despite the fact that Finland's GDP lies significantly below the level of the other Nordic countries, as well as that of, for example, Germany and the United States. In fact, all of the Nordic countries perform better in terms of subjective well-being than one would expect from their GDP levels alone.

There are very limited gains to be harvested in terms of well-being in the other Nordic countries if we focus exclusively on economic growth, as measured in GDP (see Appendix 2, point A). In Norway, for example, a GDP growth of 70 percent would be required to boost the level of subjective well-being by 5 percent, if economic growth, measured in GDP, were the sole tool that could be used.[7]

Studies show that Nordic happiness can be explained by their social security safety net, free education and a sensible balance between work and leisure.

Why is it that people in the Nordic countries are so happy? Studies show that this is largely due to the ability of the Nordic model to create a framework for 'the good life': a safety net that creates security, free education, and a sensible balance of work and leisure time that allows people to enjoy both their work and their family life.[8]

---

[5] The Nordic countries top the list in the surveys that ask for a respondent's own subjective *evaluation* of his or her overall satisfaction with life. In measurements of *affective happiness* – a short-lived emotional state – the Nordic countries typically rank lower than e.g. Latin American countries. See for example Gallup (2017), *Global Emotion Report*.

[6] Both the *World Happiness Report* and the OECD *Better Life Index* base their ratings on subjective well-being measures. The *Social Progress Index*, on the other hand, is an index that is composed of more objective goals, such as access to education, average life expectancy, health, etc.

[7] The calculation is based on the data available online in the *World Happiness Report 2018* and key economic figures for 2017 from the IMF.

[8] OECD (2017): *Better Life Index*.

Nonetheless, despite the fact that we in the Nordic countries consistently top the international rankings of subjective well-being and satisfaction with life, many Danes, Finns, Icelanders, Norwegians and Swedes still experience that they are struggling or suffering (i.e. the opposite of happiness). The aim of this report is to illuminate the inequality of subjective well-being in the Nordic region, dig slightly deeper than the international happiness rankings based on average calculations, and try to identify those who find themselves at the bottom of the well-being ladder. Who are the unhappy? What are the circumstances of lives associated with unhappiness? And what are the broader social consequences of these people struggling or suffering?

World Hapiness Report 2018	OECD – Better Life Index 2018	Social Progress Index 2017
Finland	Norway	Denmark
Norway	Denmark	Finland
Denmark	Australia	Iceland
Iceland	Sweden	Norway
Switzerland	Canada	Switzerland
Netherlands	Switzerland	Canada
Canada	Iceland	Netherlands
New Zealand	USA	Sweden
Sweden	Finland	Australia
Australia	Netherlands	New Zealand

Table 1
Top 10, World Happiness Report, Better Life Index and Social Progress Index

Figure 1
Relationship between GDP and level of well-being, 2017

Source: The Happiness Research Institute, on the basis of quality of life data from the Gallup World Poll and key economic figures from the IMF.

The less happy Nordic region

The increasing focus on subjective well-being and happiness in the Western world has produced an increased need for more nuanced methods of measuring a country's development. This has resulted, inter alia, in the *Better Life Index* published by the OECD in 2012, the same year that the United Nations published the first *World Happiness Report*.

Both the *World Happiness Report* and the *Better Life Index* rank the well-being of populations on the basis of national averages. The average level of subjective well-being tells us something about the overall level of well-being in a country, but it does not give us any insight into how that well-being is distributed.

There is no single recognised standard for measuring inequality of well-being, partly because research in *unhappiness* has only recently been given attention, and perhaps also partly because inequality in well-being is a slightly more complex concept than average happiness.

12.3 percent of the population of the Nordic countries describe themselves as struggling or suffering. The largest proportion is found in Sweden, and the smallest in Denmark. Inequality in well-being is increasing in Denmark and Sweden, and decreasing in Finland, Iceland and Norway.

In 2016, the *World Happiness Report* became the first report to present a global index of inequality in well-being in more than 150 countries. It revealed that inequality in well-being is on the rise in Denmark and Sweden, but is falling in Finland and Norway – and has also diminished considerably in Iceland.

In this report, we relate to inequality in well-being by analysing 'proportions' (see Appendix 1). In the five Nordic countries, it is normal for people to report 7, 8 or 9 when life satisfaction is evaluated on a scale from 0 to 10. A value of less than 7 is therefore viewed as a deviation. With this in mind, we consider it meaningful from a Nordic perspective to utilise the following three categories of quality of life:

Thriving: Those who score between 7 and 10
Struggling: Those who score between 5 and 6
Suffering: Those who score between 0 and 4

This tripartite breakdown of categories is also applied to several other countries by, for example, the Gallup World Poll.[9]

As Table 2 shows, struggling and suffering are not as widespread in the Nordic region as, for example, in France, the UK, Germany and especially Russia, where over half the population report to be struggling or suffering.

But although dissatisfaction and unhappiness is not as common in the Nordic countries as in many other countries, well-being inequality should not be disregarded nor ignored. 12.3 percent of the people in the Nordic region are not thriving, which is a significant proportion (this is the total percentage of those who report to be struggling or suffering). The figures range from Denmark, where about 8 percent are struggling or suffering, to Sweden, where the proportion is almost twice as great – almost 15 percent. If to this we

[9] Gallup (accessed April, 2018): *Understanding How Gallup uses the Cantril Scale.*

add the fact that a large proportion of young people report to be struggling or suffering, then there is further cause for concern. We will examine this phenomenon more closely in the following chapter.

	Suffering (0–4)	Struggling (5–6)	Thriving (7–10)
Whole Nordic region	3.9%	8.4%	87.7%
Denmark	3.0%	5.1%	91.9%
Finland	3.6%	7.9%	88.5%
Iceland	4.1%	8.5%	87.3%
Norway	3.9%	9.3%	86.8%
Sweden	4.6%	10.3%	85.1%
Netherlands	4.3%	8.0%	87.7%
Switzerland	4.7%	8.3%	87.0%
Germany	8.3%	14.2%	77.5%
United Kingdom	9.6%	15.5%	74.9%
France	17.0%	23.4%	59.6%
Russia	26.9%	34.7%	38.4%

Table 2
Distribution of people suffering, struggling and thriving, 2012–2016

Source: The Happiness Research Institute, on the basis of data from the European Social Survey.

The anatomy of unhappiness

In this chapter we will examine which factors are the most significant in determining why some people in the Nordic region thrive, while others struggle or suffer. We will also analyse which groups most often experience that they are struggling or suffering, and look at differences across gender, age and employment status.

In order to answer the question of which circumstances of life are the most significant for struggling or suffering in the Nordic countries, we have conducted a regression analysis. In this analysis we have included common demographic variables, and we have also aimed to test areas that are often highlighted in happiness research as factors that affect subjective well-being, such as social contact, mental health, general health and employment. For more details, see Appendix 2, point B.

It is important to note that the life circumstances we find associated with struggling or suffering do not reveal a particular causality, thus we cannot determine whether, for example, poor physical health causes people to be struggling or suffering, or conversely, whether it is *because* they are struggling or suffering that they experience poor physical health. We can only determine that there is a correlation between these factors.

It can be difficult to say what is a cause of people feeling they are struggling or suffering, and what is a consequence. We can only say that there is a correlation between factors.

In many cases we could assume that there is an effect that goes both ways. In the correlation between illness and unhappiness, for example, it would intuitively make sense to assume that a severe bout of illness could give rise to unhappiness for the person concerned. However, in recent years, increasing evidence has been found for the reverse causality: We see for example that happy people live longer,[10] and that health can be adversely affected by poor well-being through the effect of stress hormones and chronic inflammation.[11] In order to understand the precise relationships between circumstances of life and subjective well-being, further research is required.

Where are struggling and suffering most widespread?

Before we look at which circumstances of life are most closely associated with struggling or suffering, we will first present an overview of which demographic groups mainly report to be struggling and suffering, examining variations between countries, age and gender.

A common pattern in happiness research worldwide is that a person's subjective well-being and quality of life, measured over an entire lifespan on average, is formed like that of a U-shaped graph.[12] In other words, youth is the happiest time of our lives, after which many people experience a mid-life crisis, until well-being rises as we move into old age.

---

[10] Steptoe, A. et al. (2011): *Positive affect measured using ecological momentary assessment and survival in older men and women.*

[11] What Works Well-Being (2017): *Measuring Well-Being Inequalities: A How-To Guide.*

[12] Helliwell et al. (2015): *World Happiness Report 2015.*

However, this pattern is currently being challenged, the explanation for which can partly be found in the happiness levels of young people, see Fig. 2.

13.5 percent of young people in the 18–23 age group report to be 'struggling' or 'suffering'. Only the age group over 80 years of age records higher rates.

Fig. 2 shows that 13.5 percent of young people in the 18–23 age group in the Nordic region belong to the categories 'struggling' and 'suffering'. This makes this age group the second most vulnerable in the region.

Young women are more likely to be struggling than young men, see Fig. 3. The figure shows that the situation is worst in Sweden, where 6.5 percent of young women report to be suffering and 13 percent are struggling. Adding these two figures gives a total of 19.5 percent – almost every fifth young woman. Among young Swedish men, the figures are 3.1 percent suffering and 10.7 percent struggling, respectively. The most marked gender difference is found in Iceland, where more than three times as many young women report to be suffering, compared to young men. The only country that does not fit this pattern is Denmark; here there are still more young women than young men who are suffering (3.3 percent compared to 2.4 percent of young men), but there are significantly fewer young women (2.7 percent) than young men (7.1 percent) who are struggling.

In our analysis, we also find a number of relevant results that we will not address further in this report:

- There are no differences between the happiness levels of people in the cities and in the countryside.
- Pensioners in the Nordic region are less likely to be struggling or suffering than people in the labour market.
- People in the Nordic region who live with a partner are in less risk of struggling or suffering.
- Ethnic minorities are less happy than the majority population.

Circumstances of life most closely associated with struggling or suffering

The circumstances of life most often associated with struggling or suffering are poor general health, poor mental health, inequality of income, unemployment and limited social contact.

When all of the variables (life circumstances) are tested in relation to their explanatory power for states of struggling or suffering, we find a number of significant relations. Life circumstances such as poor general health, poor mental health, income, unemployment, limited social contact and religiosity all play a role. However, some factors are far more significant than others. Table 3 lists the life circumstances that are most closely associated with struggling or suffering in the Nordic region.

The table shows that the factor most closely associated with struggling and suffering is poor general health, followed by poor mental health. An explanation of the Nordic figures and a related analysis may be found in Appendix 2, section C.

Table 4 on page 21 shows the corresponding rankings for important life circumstances in other countries (USA, Australia, the UK and low-income countries), where other studies[13] have used the same method as we use in this report. It is apparent from the table that, as in the Nordic countries, mental health problems are among the circumstances of life most closely associated with the states of struggling and suffering in many other countries.

[13] The Global Happiness Council (2018): *Global Happiness Policy Report*.

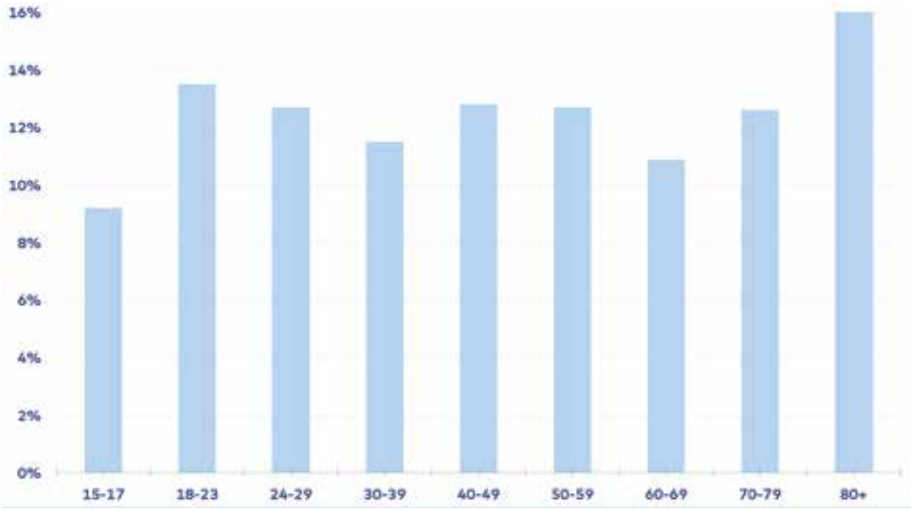


Figure 2
Proportion of people who are struggling or suffering in the Nordic countries (across age groups), 2012–2016

Source: The Happiness Research Institute, on the basis of data from the European Social. Survey.

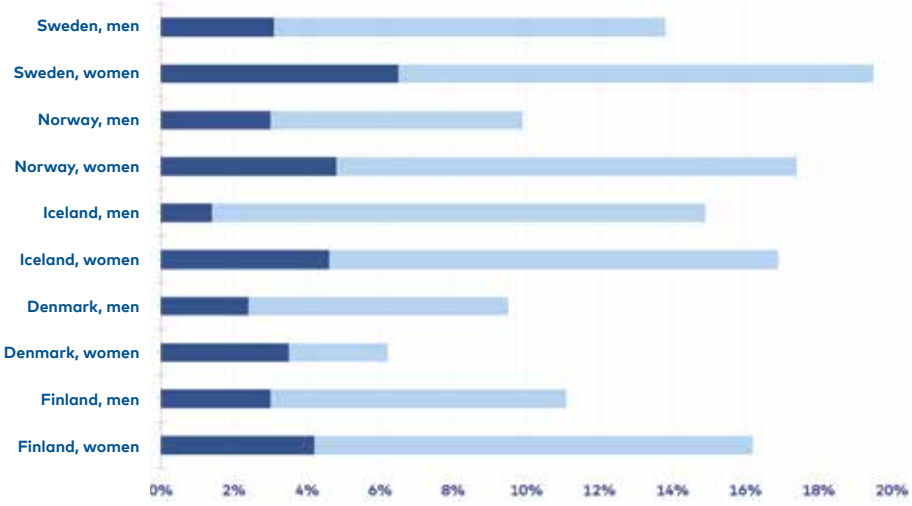


Figure 3
Proportion of young people (18–23) who are struggling or suffering in the Nordic countries (both genders), 2012–2016

Source: The Happiness Research Institute, on the basis of data from the European Social Survey.

Suffering
Struggling

	Top 5 in the Nordic region
1	Poor general health
2	Poor mental health
3	Inequality of income
4	Unemployment
5	Limited social contact

Table 3
Circumstances of life most closely associated with struggling or suffering, 2012–2016

Source: The Happiness Research Institute.

Health divides people in the Nordic region – more than anything else

Across all the Nordic countries, inequality in general health and mental health are the most crucial factors determining why some people thrive and others are struggling or suffering. Mental health, here, is not included in general health.

In relation to general health, it is – perhaps unsurprisingly – the ageing part of the population in the Nordic countries, who most often experience problems with their health. However, there are some rather interesting differences between the various countries. In Finland, for example, more elderly people report poor health compared with the other Nordic countries (fig. 4.). 9.5 percent of Finns in the 70–79 age group report that they have poor health, and for the oldest group (80+) the figure is 15.1 percent. By comparison, the figures for Norway are 7.5 percent and 11.4 percent respectively, and for Denmark 4.4 percent and 10.6 percent.

But while Finland has more older people who report poor health than the other Nordic countries, the contrary is true of the other age groups: the proportion of Finns in the age groups from 15 and up to 59 who report poor health is lower than in the other Nordic countries. For example, only 0.5 percent of the youngest group (15–17) report poor health in Finland, while the numbers vary between 1.9 percent and 2.8 percent in the other Nordic countries.

Women more often report poor health than men, especially in Denmark, Norway and Sweden.

Another interesting observation is that women more often report poor health than men (see Fig. 5). This is particularly true in Denmark, Norway and Sweden, while the difference is relatively small in Iceland. In Finland, there is no difference. There is a striking disparity between these figures and the numbers for average life expectancy. Men in the Nordic region generally report better health, yet the life expectancy of Nordic men is significantly lower than that of Nordic women.[14] The explanation for this paradox is complex, and may be found in such factors as biology, lifestyle and use of the health services.[15]

The fact that general health problems are so closely linked to dissatisfaction and unhappiness in the Nordic region comes as no surprise. An earlier international study has for example shown that a chronic disease, such as psoriasis, affects a person's quality of life more in generally happy countries, such as Denmark and Norway, than in less happy countries, such as Russia and Brazil.[16] There are several hypotheses as to why this is the case, but a common explanation is that concerns about violence, crime and the risk of poverty are limited in the Nordic communities, for which reason health concerns tend to take up more of people's awareness, and therefore also have a greater negative effect on well-being.[17]

The results relating to mental health are consistent with the results of international studies. In the *Global Happiness Policy Report 2018*, the authors collected data from all countries of the world and assessed which life circumstances caused most unhappiness among people. The report concludes

14 Nordic Co-operation (accessed May 2018): *Life expectancy.*

15 National Institute of Public Health (2007): *Report on Public Health.*

16 Happiness Research Institute & Leo Innovation Lab (2017): *World Psoriasis Happiness Report.*

17 Ibid.

	USA	Australia	United Kingdom	Low-income countries
1	Poor mental health	Poor mental health	Poor mental health	Inequality of income
2	Inequality of income	Poor general health	Poor general health	Poor mental health
3	Unemployment	Inequality of income	Inequality of income	Poor general health
4	Poor general health	Unemployment	Unemployment	Unemployment

Table 4
Top 4 relevant life circumstances worldwide

Source: The Global Happiness Council (2018): Global Happiness Policy.

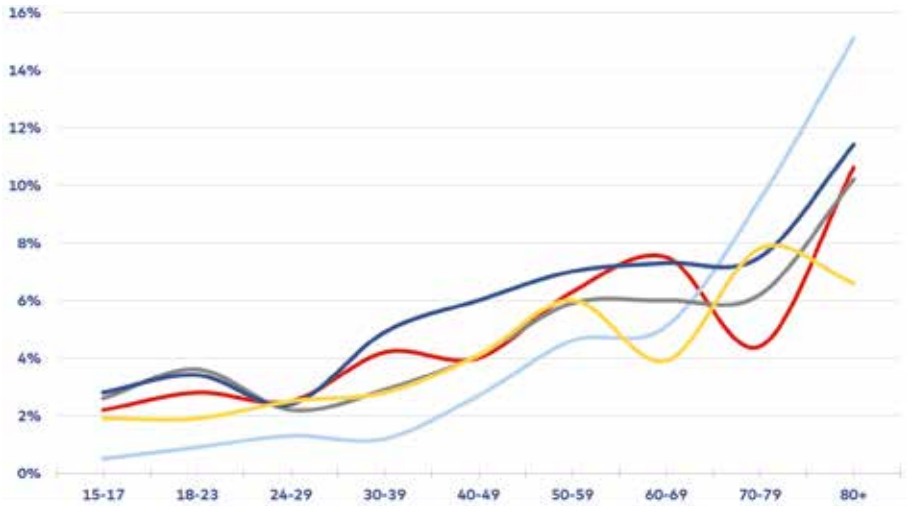


Figure 4
Proportion reporting poor or very poor general health (across countries and age groups), 2012–2016

Source: The Happiness Research Institute, on the basis of data from the European Social Survey.

- Denmark
- Finland
- Iceland
- Norway
- Sweden

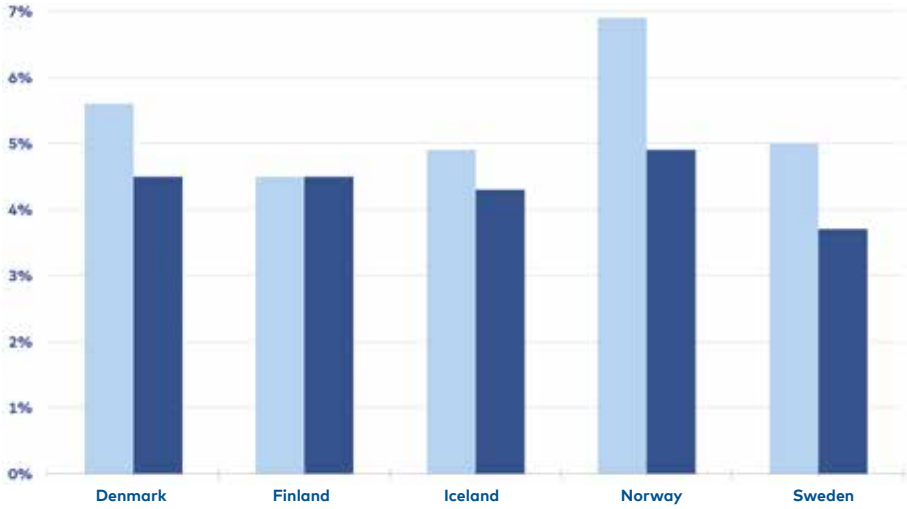


Figure 5
Proportion of men and women experiencing poor or very poor general health, 2012–2016

The Happiness Research Institute, on the basis of data from the European Social Survey.

- Men
- Women

that even in countries where inequality of income is significantly higher than in the Nordic countries – such as the United States, Australia and the UK – mental health problems are the most important factor determining whether or not you feel you are thriving. Only in low-income countries does inequality in income have a greater impact, but even here, mental health remains the second most decisive life circumstance.[18]

The mental health conditions of young people in the Nordic region have generally worsened, and are manifested as stress, depression, anxiety, self-harm, consumption of antidepressants and, in extreme cases, suicide.

In general, the mental health state of young people in the Nordic region has generally worsened.[19] In Norway, for example, an increase of 40 percent was seen over a five-year period in the proportion of young people seeking help with mental health problems.[20] In Denmark, 18.3 percent of young people between 16 and 24 years suffer from poor mental health. This number comprises an average of the 12.9 percent recorded for men and as many as 23.8 percent for women.[21]

Mental health problems among young people manifest themselves in the form of stress, depression, anxiety, self-harm, consumption of antidepressants and, in extreme cases, suicide. The latter is a particularly big problem in Finland, which otherwise ranks as the happiest country according to the *World Happiness Report 2018*. Here, suicide is responsible for one-third of all deaths among 15–24 year olds.[22]

In relation to symptoms of depression, we find a very significant gender difference in this study: Iceland has the highest proportion of young women who feel depressed (9.2 percent), while the lowest level was recorded in Denmark (6 percent). See Fig. 6. For young men the numbers are consistently lower, ranging from 0.8 percent in Norway to 3.9 percent in Sweden. See Fig. 7.

Only top incomes protect against unhappiness

On a global scale, the factor that best accounts for the difference between happy and unhappy populations is income.

On a global level, income is the factor that best explains the difference between happy and unhappy populations,[23] but in the Nordic countries, income differences do not play as crucial a role in people's subjective well-being. Inequality of income ranks as the third most crucial life circumstance explaining why some people struggle or suffer, but it is important to note that the effect is found only among the 10 percent of the population in the highest income group – i.e. if you belong to the 10 percent with the highest incomes, you have less risk of reporting to be struggling or suffering. However, no significant difference was recorded between whether people who were struggling or suffering had an income in the lowest 10 percent or near the median income. Consequently, we cannot draw the conclusion that the higher your income, the less unhappy you are likely to be; we can only say that people in the wealthiest segment seldom report that they are struggling or suffering.

The richest groups are rarely afflicted with dissatisfaction and unhappiness.

18 The Global Happiness Council (2018): *Global Happiness Policy Report.*

19 Ibid.

20 Reneflot, A. et al. (2018): *Psykisk Helse i Norge.*

21 SDU (2017): *Den Nationale Sundhedsprofil.*

22 Nordic Council of Ministers, Nordic Centre for Welfare and Social Issues (2016): *Mental health among youth in Finland: Who is responsible? What is being done?*

23 Helliwell et al. (2018): *World Happiness Report 2018.*

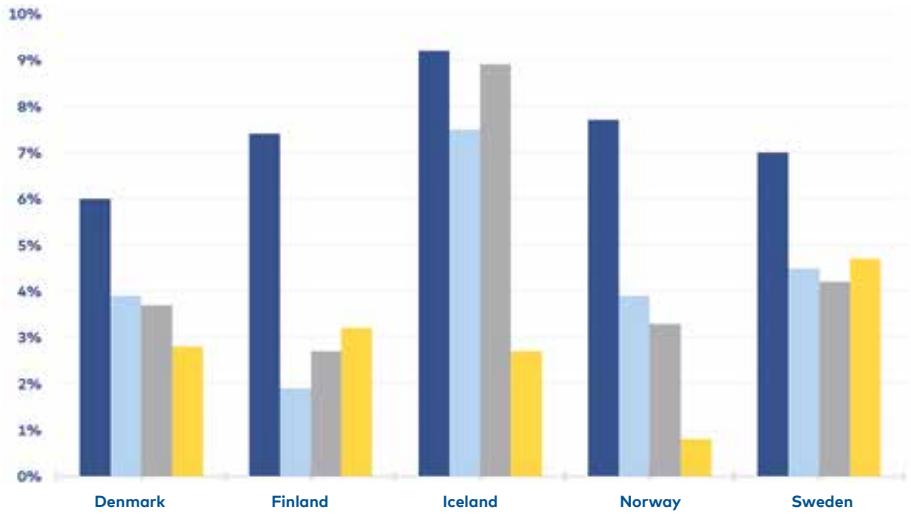


Figure 6
Women: Proportion often or always feeling depressed (by country and age), 2012–2016

Source: The Happiness Research Institute, on the basis of data from the European Social Survey.

- 15–23
- 24–39
- 40–59
- 60+

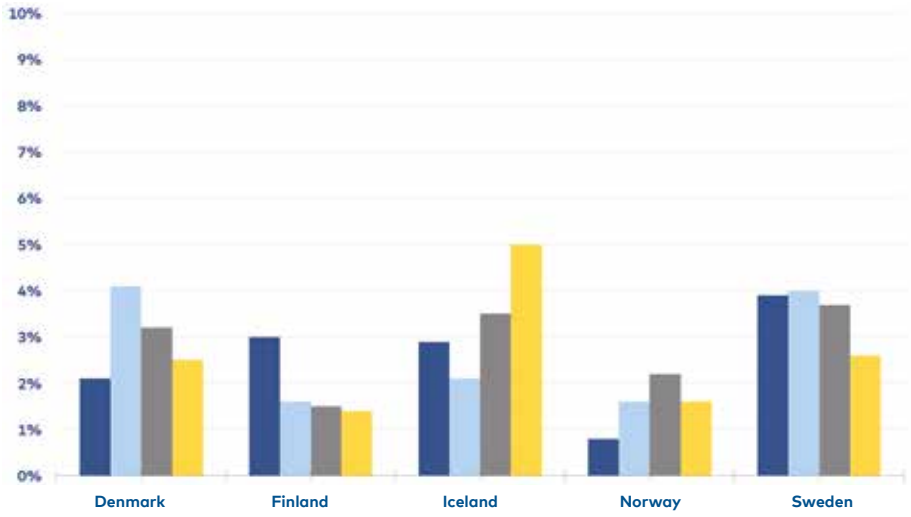


Figure 7
Men: Proportion often or always feeling depressed (by country and age), 2012–2016

Source: The Happiness Research Institute, on the basis of data from the European Social Survey.

- 15–23
- 24–39
- 40–59
- 60+

Inequality of income is however strongly linked to inequality in health. There are significant health differences between people with low, middle and top incomes, with both a higher mortality rate and a higher rate of disease among the poor.[24] In Norway and Finland, this type of social inequality is further impacted by the fact that higher-income people make greater use of the health services.[25]

The unemployed are more likely to be struggling or suffering, particularly men

After poor general health, poor mental health and income, unemployment is the next most decisive circumstance of life associated with struggling and suffering in the Nordic countries. The majority of Nordic people spend most of their lives working. It is therefore hardly coincidental that employment plays such an important part in the well-being of the individual, which is also one of the most robust findings in happiness research in general.[26]

Chronic unemployment is associated with a large degree of unhappiness to which it is hard to adapt. If people are unemployed over an extended period of time, their level of subjective well-being remains low even after they regain employment; their well-being becomes permanently marked by the experience of unemployment.[27]

Part of the explanation of why the unemployed are likely to be unhappy may be attributed to poor mental health. Unemployment is associated with stress, and although having a job is not in itself a guarantee of being stress-free, there are particularly large health problems related to the group of unemployed.

Chronic unemployment is associated with a large degree of unhappiness. Every third person involuntarily without work is not thriving in the Nordic countries.

Fig. 8 shows that there is significant inequality in subjective well-being between the employed and unemployed (especially the chronically ill and disabled) in the Nordic region. The figure shows that the unemployed are more often unhappy in all Nordic countries, surpassed only by people with chronic illnesses or disabilities. 12.8 percent of the unemployed fall within the category suffering, while 19.6 percent fall within the category struggling. Almost every third person without a job is thereby 'not thriving' or unhappy in the Nordic countries.

Among the employed, the corresponding figures are 2.2 percent suffering and 6.8 percent struggling, which means that 9 percent are not thriving. Among the unemployed, more than three times as many people are struggling or suffering, compared to the employed.

In general, men are hit harder than women by unemployment.

In this report, we conducted an analysis in which we have tested the probability of those who are unemployed experiencing depressive symptoms, as opposed to the employed. The result shows that the probability is greatest in Norway, where the risk of experiencing depressive symptoms is more than twice as high for the unemployed as for the employed. In general, men are worse off than women (see Appendix 3).

---

[24] Nordic Council of Ministers, Nordregio (2018): *State of the Nordic Region 2018*.

[25] Ibid.

[26] Helliwell, J. et al. (2017): *World Happiness Report 2017*.

[27] Ibid.

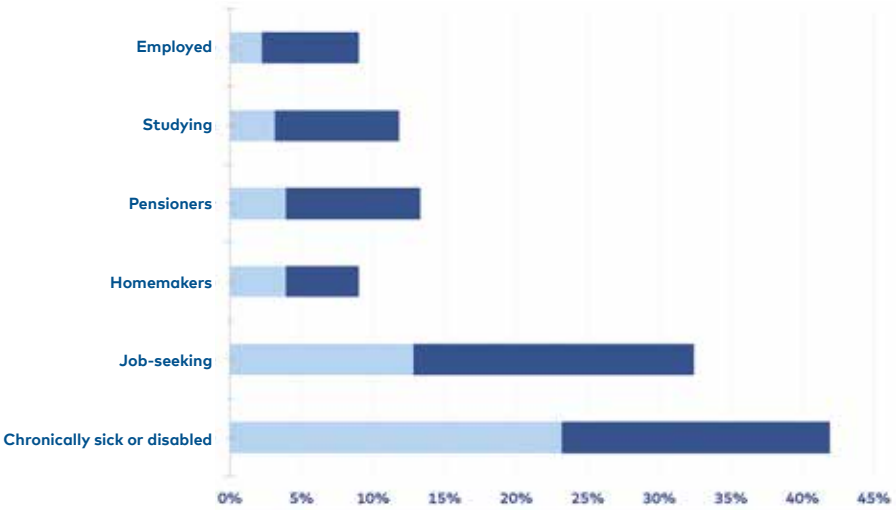


Figure 8
Proportion of people who are struggling or suffering, by employment status, 2012–2016

Source: The Happiness Research Institute, on the basis of data from the European Social Survey.

Inequality in social contact has most impact on older men

Strong relationships and an active social life are often emphasised as one of the most important factors in human life and subjective well-being. In this analysis it has not been possible to test for involuntary loneliness, which we might otherwise expect to have a particularly strong effect on inequality of well-being. Instead, we have tested the effect of never or rarely meeting friends, family or colleagues, as opposed to having highly active social contact with other people. In all of the Nordic countries, it is clear that people who meet up often with friends, family and colleagues thrive markedly better than people who never or rarely do so.

Men are less socially active than women, and elderly men have the least social contact.

The inequality in social contact is also interesting in relation to age and gender, as illustrated in Fig. 9. There is a very clear correlation between age and lack of social contact, understood in the sense that older people more rarely have contact with their circle of contacts than young people. However, the most conspicuous factor is the large gender difference, with men being less socially active than women. This applies at virtually all age levels. Older men have least social contact, which manifests itself as an increased level of dissatisfaction in this group.

Happiness and religiousness

The analysis shows that religiosity – the degree to which one has faith in a religion – has a bearing on quality of life and inequality of subjective well-being. Although religiosity is not a top-five factor in explaining struggling and suffering, it has a marked significance in all the Nordic countries.

It is, however, important to point out that the effect of religiosity on subjective well-being is observed only when people are highly religious. If a person is only slightly or moderately religious, no effect on the level of subjective well-being can be traced. On the other hand, those who score highly on the scale of religiousness tend to be significantly happier than the non-religious segment of the population.

Very religious people are significantly happier than those who are non-religious.

This effect remains even after we control for all the other demographic variables and life circumstances in the model. A couple of possible explanations for why many highly religious people thrive more could be that these people find greater meaning in their existence through their religion (corresponding to the eudaimonic happiness mentioned in the introduction), or that religion serves as a comfort or protection against adversity in life. One might also consider whether many religious people might experience a greater connection to a community – through their church, synagogue or mosque – than is the case for the average person.

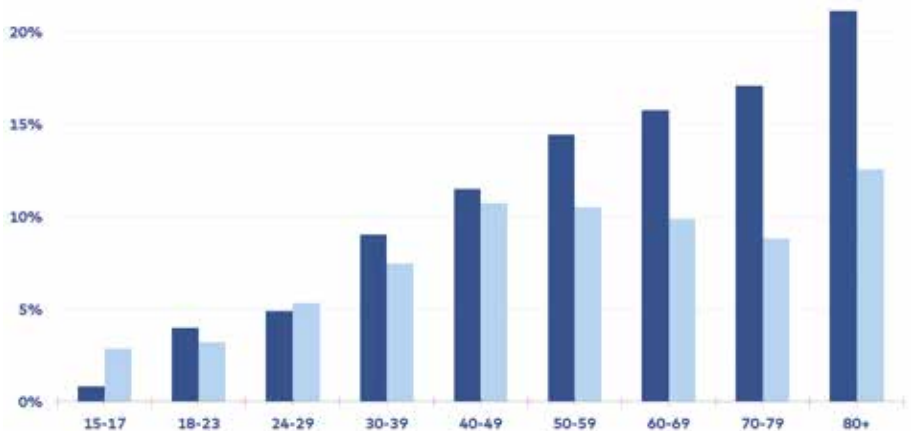


Figure 9
Proportion with rare or no social contact (by age and gender), 2012–2016

Source: The Happiness Research Institute, on the basis of data from the European Social Survey.

Men
Women

Consequences of unhappiness

In the previous chapters, we have identified those who most often find themselves struggling or suffering, and which life circumstances most often apply to such a situation. While dissatisfaction and unhappiness have personal consequences for the individuals involved and their relatives, a growing inequality of well-being also has potential consequences for society.

Unhappiness is costly for society

Not thriving or being unhappy has an impact on society, and has negative consequences for jobs and the economy.

There is evidence to show that if people are struggling or suffering, it raises costs for their respective workplaces through higher rates of absence due to sick leave.[28] A person who reports a level of subjective well-being of 3 on a 0–10 scale thus costs a company three times more in sick leave alone than a person who reports 7.[29] If we take the resulting reduced productivity into account as well, the number will naturally be higher.

28 Rath, T & Harter, J (2010): *The Economics of Well-being*, Gallup.

29 Ibid.

In addition to the relationship between physical health and subjective well-being that we discussed in the previous chapter, a US study shows for example that persons with chronic illnesses, who simultaneously belong to the categories of struggling or suffering, have a 64 percent greater risk of being diagnosed with one or more secondary complications within a year, compared to chronically ill people who are thriving. This has consequences for the economy due, amongst other things, to increased use of the public health services.[30]

Among people with chronic illnesses, it has been found that those who are also struggling have a greater risk of developing complications.

In relation to social costs, poor mental health is one of the greatest problems related to subjective well-being. In Denmark, for example, it is estimated that the direct and indirect costs to society amount to DKK 55 billion a year (approximately EUR 7.4 billion a year)[31] and overall for OECD countries it is estimated that poor mental health reduces the gross domestic product (GDP) by 5 percent.[32]

Unhappiness undermines trust

Trust is one of the cornerstones of the Nordic communities: people in the Nordic region report significantly higher levels of trust than in the rest of the world. Trust is crucial to society's cohesion, and also seems to have a significant positive impact on our socio-economics.[33]

However, it is not a law of nature that we will continue to trust one another. If we wish to maintain a cohesive society in the future, we need to address the factors that create or challenge trust.

Previously, inequality of income has been seen as a decisive factor for distrust in society, but recent studies have shown that the effect that inequality in subjective well-being has on trust is significantly greater.[34] This implies that an increase in the numbers struggling or suffering in society will, all else being equal, lead to a decline in trust.

Recent studies show that the impact of inequality of well-being challenges the level of trust in society.

There is also another interesting relationship between trust and subjective well-being. One study has for example shown that people who become unemployed or ill, or who are subject to discrimination, will most often experience a significant drop in their level of well-being, but that this drop is greatest in societies with low levels of trust, and least in societies with high levels of trust.[35] The high levels of trust in the Nordic countries therefore act as a bulwark against unhappiness.

These relationships thus call for greater political focus on creating frameworks that can help people to thrive. This will not only benefit people who are suffering and their relatives – it will also have a positive socio-economic effect and ensure that we can maintain trust and cohesion in society.

---

30 Rath, T & Harter, J (2010): *The Economics of Well-being*, Gallup.

31 The National Research Centre for the Working Environment (Denmark) (2010): *Hvidbog om mentalt helbred, sygefravær og tilbagevenden til arbejde.*

32 The Global Happiness Council (2018): *Global Happiness Policy Report.*

33 Nordic Council of Ministers (2017): *Trust – the Nordic Gold.*

34 Goff, L, J F Helliwell, and G Mayraz (2016): *The Welfare Costs of Well-Being Inequality.*

35 Helliwell, J F, H Huang, and S Wang (2016): *New Results on Trust and Well-Being.*

The Nordic perspective

Overall, the report draws a picture of the Nordic countries as a region, which faces a number of challenges in relation to subjective well-being and happiness. It would be utopian to try to envisage a society in which struggling and suffering did not exist at all – and of course it might not be desirable, either; a normal course of life brings many periods during which people do not perceive themselves to be happy.

The causes of struggling and suffering in the individual are unique, but coincidences and similarities in the analysis results across the Nordic countries indicate that there are certain general structures in the societies that have a negative influence on subjective well-being.

The causes of unhappiness are unique to each individual, but general structures in society can also adversely affect well-being.

The hope is that this report, with its Nordic perspective, can contribute to a debate on how we can limit the number of people who experience struggling or suffering.

An essential question is what can be done here and now to help individual citizens. There is also the question of what the role of the public sector and civil society should be in solving the problem at a structural level.

However, finding solutions to these challenges calls for more research and more robust data on the well-being of people in the Nordic countries, and the circumstances that influence this. A data set might for example focus on variations in well-being between municipalities, which could provide knowledge of which structures contribute to well-being.

In addition, it would make sense to use time series data – i.e. measuring the well-being of people over time – and thereby produce new knowledge about what causes inequalities in well-being, and the consequences of this.

It is important that these data are made available to a wider research community, so that we can obtain different perspectives on what can create the best possible lives for the greatest possible number of people.

In order to learn as much as possible about the problem, and how best to tackle it, the Nordic countries should share their knowledge of and experience with the issue to the greatest extent possible.

The Nordic countries should share knowledge and experience about the issue.

Bibliography

- Statistics Denmark (2017): *Ulighedsmål: Gini-koefficient*.
- The National Research Centre for the Working Environment (Denmark) (2010): *Hvidbog om mentalt helbred, sygefravær og tilbagevenden til arbejde*, Copenhagen: Det Nationale Forskningscenter for Arbejdsmiljø.
- European Social Survey. Data used for general analysis in the study. Data retrieved via: www.europeansocialsurvey.com

  Specific data sources:

  o European Social Survey Cumulative File, ESS 1-7 (2016). Data file edition 1.0. NSD-Norwegian Centre for Research Data, Norway – Data Archive and distributor of ESS data for ESS ERIC.

  o European Social Survey Round 8: European Social Survey Round 8 Data (2016). Data file edition 1.0. NSD – Norwegian Centre for Research Data, Norway – Data Archive and distributor of ESS data for ESS ERIC.
- Public Health Agency of Sweden (2016): *Statistik över vuxnas psykiska hälsa*, accessed via: www.folkhalsomyndigheten.se/livsvillkor-levnadsvanor/psykisk-halsa-och-suicidprevention/statistik-psykisk-halsa/vuxnas-psykiska-halsa
- Gallup (accessed April, 2018): *Understanding How Gallup uses the Cantril Scale*, accessed via: http://news.gallup.com/poll/122453/understanding-gallup-uses-cantril-scale.aspx Global
- Happiness Council (2018): *Global Happiness Policy*, United Arab Emirates: World Government Summit.
- Goff, L., Helliwell, J. & Mayraz, G. (2016): *The Welfare Costs of Well-Being Inequality*, NBER Working Paper no. 21900.
- Happiness Research Institute & Leo Innovation Lab (2017): *World Psoriasis Happiness Report*, Copenhagen.
- Helliwell, J. F., Huang, H., & Wang, S. (2016): *New Results on Trust and Well-Being*, NBER Working Paper no. 22450.
- Helliwell, J., Layard, R., & Sachs, J. (2015): *World Happiness Report 2015*, New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., & Sachs, J. (2016): *World Happiness Report 2016*, New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., & Sachs, J. (2017): *World Happiness Report 2017*, New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., & Sachs, J. (2018): *World Happiness Report 2018*, New York: Sustainable Development Solutions Network.
- Nordic Co-operation (accessed May, 2018): *Life expectancy*, accessed via: https://www.norden.org/en/theme/former-themes/theme-2012/nordisk-statistik-i-50-aar-1/statistics-from-1962-2012/life-expectancy
- Nordic Council of Ministers, Nordic Centre for Welfare and Social Issues (2016)*: Mental health among youth in Finland: Who is responsible? What is being done?*
- Nordic Council of Ministers, Nordic Council of Ministers Secretariat (2018): *State of the Nordic Region 2018*, Copenhagen: Nordic Council of Ministers.
- Nordic Council of Ministers (2017): *Trust – The Nordic Gold*.
- OECD (2013): *Guidelines On Measuring Subjective Well-being,* Paris: OECD Publishing.
- OECD (2017): *Better Life Index*, accessed via: www.oecdbetterlifeindex.org
- OECD (2017): *Better Life Initiative – Measuring Well-being and progress*, Paris: OECD Statistics Directorate.

- Rath, T., & Harter, J. (2010): *The Economics of Well-being*, Gallup Consulting.
- Reneflot, A., Aarø, L.E., Aase, H., Reichborn-Kjennerud, T., Tambs, K., & Øverland, S. (2018): *Psykisk Helse i Norge*.
- SDU (2017): *Den Nationale Sundhedsprofil*, data accessed via: www.danskernessundhed.dk
- Social Progress Imperative (2017): *Social Progress Index*, accessed via: www.socialprogressimperative.org
- Steptoe, A., & Wardle, J. (2011): *Positive affect measured using ecological momentary assessment and survival in older men and women, Proceedings of the National Academy of Sciences*.
- Danish National Institute of Public Health (2007): *Folkesundhedsrapporten*.
- Health Data Agency (Sundhedsdatastyrelsen) (2017): *Medicinforbrug – Indblik*.
- The Happiness Research Institute (2013): *Der er et lykkeligt land*.
- UN NEWS (2012): *Ban: new economic paradigm needed, including social and environmental progress*, accessed via: https://news.un.org/en/story/2012/04/407782
- What Works Well-Being (2017): *Measuring Well-Being Inequalities: A How-To Guide*.
- World Health Organization (2017): *Depression and Other Common Mental Disorders*, Geneva.
- World Health Organization (2017): *Scaling-up treatment of depression and anxiety: a global return on investment analysis*.

Appendix 1: Method

Definition of inequality of well-being

There are two recognised[36] ways to measure inequality of subjective well-being:

- Standard deviation: Standard deviation measures the distance from the individuals in a group to the group average. The greater the standard deviation, the greater the spread in the group, and thereby the greater the inequality. Standard deviation is calculated by taking the square root of the average difference between the individual and the squared average.

- Proportions: In this method, well-being is divided into groups who record, for example, low, medium and high well-being, and the characteristics that the members of each group have in common with each other are then investigated, as well as the characteristics that the various groups do not share. In this way, one can for example identify the unique characteristics of people reporting low subjective well-being, which thereby apply particularly to that group and tell us something about the type of people who experience low levels of subjective well-being.

In this report, we have utilised the proportional measure. Under the inspiration of Gallup, we have divided the population of each country into three groups:[37]

1. Suffering – People with a subjective well-being score of 0–4
2. Struggling – People with a subjective well-being score of 5–6
3. Thriving – People with a subjective well-being score of 7–10.

Data

We have used a data set drawn from the European Social Survey (ESS), with a data extract covering the five Nordic countries (as well as the UK, for comparison) for the period 2012–2016. Data collection takes place every second year, so our data extracts cover three rounds of data collection, in which Denmark and Iceland have only participated in two (data is lacking for Denmark in 2016 and for Iceland in 2014). All of the respondents were more than 15 years of age.

A central assumption for all of the calculations presented in the report is thereby that we can reasonably compare the populations of a given country in 2012 with the same country in 2016, i.e. that there have been no significant changes in the Nordic countries during this period. As it is clear that average well-being is declining in all the Nordic countries while inequality of subjective well-being is rising, it could be said that our results are conservative. If one took a snapshot in 2016, the level of inequality would be greater than we report here.

The reason we nonetheless make this assumption is that our survey design requires relatively large amounts of data that we can only obtain by aggregating over several rounds of collection (especially in Iceland, where there were fewer respondents in each collection round). See Table 5.

Since we have only been able to collect data from the five above-mentioned countries, we are unable to report on the Faroe Islands, Greenland and Åland.

36 What Works Wellbeing (2017): *Measuring Wellbeing Inequalities – How To Guide.*

37 Gallup (accessed April, 2018): *Understanding How Gallup uses the Cantril Scale.*

Table 5
Sample size for each country

	2012	2014	2016	Total
Denmark	1,648	1,500	No data available	3,148
Finland	2,194	2,085	1,923	6,202
Iceland	748	No data available	878	1,626
Norway	1,622	1,433	1,543	4,598
Sweden	1,844	1,788	1,543	5,175

A conservative estimate for unhappiness

The estimates for unhappiness in this analysis differ slightly from those of other available data. The analyses in this report are based on the European Social Survey, as this provides an opportunity to compare the Nordic countries with each other. If, on the other hand, we use other data on corresponding themes of subjective well-being, we obtain a rather different picture: Statistics Denmark, for example, conducted a quality of life study in 2015[38] on the Danish population. This showed that 5.3 percent reported a very low quality of life (between 0 and 3). In the European Social Survey, just 1.9 percent of the Danish population falls within this category. The discrepancy may be attributable to different collection methods.

Because of these differences, we recommend that all figures in this report are read and interpreted as conservative estimates, and we emphasise that it is entirely possible that unhappiness is much more widespread than is revealed by the statistics.

In the case of Denmark, it is also important to note that the latest data is from 2014. Since several national surveys in recent years have recorded increasing stress and poorer mental health in the population, there is also good reason to suppose that the unhappiness statistics for Denmark are higher today than in 2014, and thereby that the problem is greater than that revealed by the figures in the report.

38 Statistics Denmark (2015), accessed via: http://dst.dk/extranet/livskvalitet/livskvalitet.html

Appendix 2: Analysis

A. The relationship between growth in GDP per capita (PPP) and growth in happiness

Table 6 on page 38 illustrates just how little even a considerable growth in GDP influences the growth of happiness in some of the world's richest countries – including the Nordic countries – if this is the only tool applied. To boost happiness by 5 per cent in Norway would for example require a growth in GDP per capita PPP of no less than 70 percent. It is therefore almost unthinkable that the happiness level in Norway or the other Nordic countries could be boosted by focusing on economic growth alone, as measured in GDP.

B. Summary of test variables in the regression model

In a regression analysis, we have selected a number of independent variables that could explain why people report that they are struggling or suffering (the dependent variable).

In the regression analysis, we included ordinary demographic variables such as gender and age. In addition, we wished to test areas that we know are of specific relevance to subjective well-being and happiness, such as social contact, mental health, physical health, employment etc.

- Age
- Gender
- Educational background
- Income
- Civil status
- Domicile (whether the respondent lives in the city, the countryside, in a village, etc.)
- Poor mental health (the question relates to how often the respondent feels depressed)
- Poor general health (the question is a self-assessment of the respondent's general state of health)
- Unemployment
- Inequality of income
- Religiosity (the question relates to how religious the respondent is, regardless of which religion he or she belongs to)
- Limited social contact (the question relates to how often the respondent is in contact with friends, family and colleagues. 'No contact' cannot necessarily be understood to mean involuntary loneliness.)
- Immigrant/Born in the country
- Ethnic majority/Ethnic minority

C. Analysis design

Calculation example from "the entire Nordic region"

We estimate the following linear regression,

$$y_i = x_i^T \beta + \varepsilon_i$$

where xi are the variables we estimate, and beta are their respective coefficients. Epsilon indicates the uncertainty in our regression model. In this regression, yi represents subjective well-being on an ordinary 0–10 scale.

The intention behind the model is to try to estimate the variables, xi, which can best explain people's well-being, yi. It is important to point out that with this method we can speak only of statistical relations, i.e. correlation, not causality. We *cannot* therefore say that people for example respond y = 10 *because* x = 5, but only that the two values are often found in the same people. There is thus a *correlation* between the two variables, but we do not know the *causal relationship*.

The results for the entire Nordic region are shown on pp. 39–40, but the calculations are the same for all countries.

The three columns show three different regressions that we have estimated. In the first, *full scale*, the dependent variable, yi, contains all responses on a scale of subjective well-being from 0 to 10. In the second column, *struggling*, the dependent variable,

yi, has only two response options, namely 0 and 1, as we have defined all those who respond from 0 to 6 as *struggling*, while all those from 7 to 10 are *not struggling*. In the third column, *suffering*, the dependent variable, yi, once again has only two response options, namely 0 and 1. Here we have defined all those who respond from 0 to 4 as *suffering*, while all those from 5 to 10 are *not suffering*.

We have thereby divided our data sets into three proportions, as described above. Comparing, for example, *full scale* with *suffering* gives us an overview of factors that can provide us with insights into which types of people are struggling. If the coefficient for a given variable is significant in the *full scale* regression, but not, for example, in the *suffering* regression, this means that the variable in question – even if it has a clear connection with the subjective well-being of the average person – is not unequivocally linked with unhappy people. A good example is the variable *income*. Here we find a clear correlation between higher incomes and happiness, at least in relation to the average person on the full scale. But we do not find that income has any unequivocal link with unhappy people – with the exception of the richest 10 percent, who appear to be less unhappy. (NB: The income groups are divided into deciles, with group 10 corresponding to the richest 10 percent.)

On the other hand, it is a little harder to say anything concrete about just how much less unhappy the wealthiest 10 percent are. This is because all our variables are categorical, so our coefficients are not expressed in percentages. However, we can rank the variables that explain most on the basis of the size of their coefficients.

In the Nordic region, the variable *depressed – often* best explains which group of people are unhappy – a result which is almost tautological, but which should nonetheless be taken seriously.

Unfortunately, it is not possible to compare coefficients between the different regressions. This is because the number of people who are *suffering* is not the same as the number of people who are *struggling*. Since the fewest people are *suffering*, the coefficients are also smallest for that regression.

All of the variables we work with are so-called categorical variables, which means that they contain various categories, such as the variable *social contact*, which has five possible responses:

1. Never
2. Monthly
3. Weekly
4. Several times a week
5. Daily

In this case, the first of these does not exist in our output for the entire Nordic region, below. This is because the first response option in each variable is used as a benchmark to which the other variables can be compared.

We tested for multicollinarity – i.e. for correlations between two or more independent variables – by calculating the so-called "Variance Inflation Factor". Usually, VIF values of less than four are can be accepted between independent variables. In our regressions, we encountered no problems with multicollinarity.

Table 6

	Current GDP per capita (USD '000)	GDP per capita required to boost quality of life by 5 percent (USD '000)	Percentage rise in GDP per capita required to boost quality of life by 5 percent
Denmark	49.6	84.2	70%
Finland	44.0	75.8	72%
Iceland	52.1	87.8	68%
Norway	70.6	119.7	70%
Sweden	51.3	85.2	66%
Cameroon	3.4	4.8	41%
Guatemala	8.2	12.7	55%
United Kingdom	43.6	71.6	64%
Germany	50.2	82.2	64%
USA	59.5	96.8	63%

Results for the entire Nordic Region

Variables	Full scale	Struggling	Suffering
Intersection point	7.91***	2.07***	2.88***
	(0.10)	(0.43)	(0.69)
Gender	0.08**	0.08	0.17
	(0.02)	(0.12)	(0.20)
Occupation – student	0.25***	0.26	0.45
	(0.04)	(0.21)	(0.41)
Occupation – unemployed, job-seeking	-0.68***	-0.98***	-1.14**
	(0.07)	(0.25)	(0.36)
Occupation – unemployed, non-job-seeking	-0.77***	-0.95*	-0.81
	(0.12)	(0.41)	(0.59)
Occupation – chronically sick/disabled	-0.25**	-0.24	-0.57
	(0.08)	(0.28)	(0.36)
Occupation – pensioner	0.37***	0.42*	0.23
	(0.03)	(0.16)	(0.28)
Occupation – military	0.08	0.66	-1.00
	(0.36)	(1.98)	(2.00)
Occupation – homemaker	0.23***	0.30	-0.38
	(0.07)	(0.33)	(0.48)
Occupation – other	0.11	0.29	0.63
	(0.13)	(0.59)	(1.08)
Partner	-0.34***	-0.46***	-0.26
	(0.03)	(0.14)	(0.23)
Income group – 2	-0.05	0.04	-0.12
	(0.06)	(0.22)	(0.33)
Income group – 3	0.08	0.07	0.06
	(0.06)	(0.23)	(0.36)
Income group – 4	0.17**	0.27	0.29
	(0.06)	(0.24)	(0.39)
Income group – 5	0.15*	0.23	0.30
	(0.06)	(0.25)	(0.42)
Income group – 6	0.23***	0.70**	0.70
	(0.06)	(0.27)	(0.45)
Income group – 7	0.28***	0.64*	0.72
	(0.06)	(0.28)	(0.48)
Income group – 8	0.26***	0.60*	0.92
	(0.06)	(0.27)	(0.50)
Income group – 9	0.28***	1.02**	0.95
	(0.06)	(0.31)	(0.57)
Income group – 10	0.39***	1.16***	1.15*
	(0.06)	(0.31)	(0.57)
Ethnicity	0.15*	0.29	0.49
	(0.07)	(0.28)	(0.44)

Religious – slightly	0.03	0.01	0.10
	(0.03)	(0.15)	(0.25)
Religious – moderately	0.17***	0.20	0.43
	(0.04)	(0.18)	(0.32)
Religious – very	0.21***	0.46**	0.40
	(0.03)	(0.17)	(0.28)
Religious – highly	0.47***	0.53	0.51
	(0.06)	(0.28)	(0.45)
Country of birth	-0.05	-0.17	0.00
	(0.05)	(0.20)	(0.33)
Dwelling – village	-0.05	-0.30	0.09
	(0.04)	(0.19)	(0.32)
Dwelling – provincial town	0.01	-0.07	0.00
	(0.04)	(0.18)	(0.29)
Dwelling – suburb	0.08	0.05	0.10
	(0.04)	(0.20)	(0.34)
Dwelling – city	0.14**	0.07	0.28
	(0.04)	(0.22)	(0.37)
Health – good	-0.32***	-0.57***	-0.03
	(0.03)	(0.17)	(0.33)
Health – medium	-0.71***	-1.29***	-0.93**
	(0.04)	(0.18)	(0.33)
Health – poor	-1.57***	-2.23***	-1.88***
	(0.07)	(0.26)	(0.39)
Health – very poor	-2.19***	-2.57***	-2.20***
	(0.14)	(0.47)	(0.54)
Depressed – sometimes	-0.97***	-1.37***	-1.55***
	(0.03)	(0.12)	(0.22)
Depressed – often	-1.99***	-2.31***	-2.53***
	(0.09)	(0.27)	(0.34)
Depressed – always	-1.51***	-1.49***	-2.47***
	(0.12)	(0.41)	(0.48)
Social contact – monthly	0.22***	0.50*	0.60
	(0.05)	(0.20)	(0.31)
Social contact – weekly	0.23***	0.50*	0.74*
	(0.05)	(0.21)	(0.34)
Social contact – several times a week	0.30***	0.64***	0.80**
	(0.04)	(0.18)	(0.29)
Social contact – daily	0.41***	0.57**	0.79*
	(0.05)	(0.20)	(0.33)
Significance levels	0 '***' 0.001 '**' 0.01 '*' 0.05		

Appendix 3: Probability of experiencing symptoms of depression in the case of unemployment

- Denmark: 1.7 times more likely to be depressed in the case of unemployment
- Finland: 1.4 times more likely to be depressed in the case of unemployment
- Norway: 2.2 times more likely to be depressed in the case of unemployment
- Sweden: 1.7 times more likely to be depressed in the case of unemployment

** The dataset for unemployed Icelanders is insufficiently large to enable predictions on mental health to be made.*

In general, in this report we find that poor mental health more often affects women than men. However, when comparing the variables employment and depression, it is men who are most likely to be affected.

Probability of experiencing symptoms of depression in the case of unemployment (by gender)

- Women: 1.5 times more likely to be depressed in the case of unemployment
- Men: 1.9 times more likely to be depressed in the case of unemployment

Source: The Happiness Research Institute, on the basis of data from the European Social Survey.

Nordic Council of Ministers
Nordens Hus
Ved Stranden 18
DK-1061 Copenhagen K
www.norden.org

It is true that we in the Nordic countries are generally happier than people in the rest of the world, but there are also people in Denmark, Finland, Iceland, Norway and Sweden who describe themselves as struggling or even suffering.

This report analyses which factors are the most significant in determining why some people in the Nordic region are happy, while others are struggling or suffering. The study also analyses which groups of people are most often struggling or suffering. Finally, the report discusses the potential consequences for our society.

ANP 2018:799
ISBN 978-92-893-5739-5 (PRINT)
ISBN 978-92-893-5740-1 (PDF)
ISBN 978-92-893-5741-8 (EPUB)