

# One in three Luxembourg residents report their mental health declined during the COVID-19 crisis

## Results of the COVID-19 Social and Economic Impact Survey

STATEC conducted a national survey on the social and economic impact of COVID-19 in Luxembourg in collaboration with TNS Ilres. Discover the results of the survey in this special series of Regards portraying life in lockdown, changes in perceptions, and in the employment and financial situation of Luxembourg's residents. In this edition, we will focus on the effects of the lockdown on mental health.

The COVID-19 pandemic and fight against it has had significant collateral effects on mental health. Based on recently collected data by STATEC<sup>1</sup>, one in three Luxembourg residents reported a decline in their mental health [santé morale], which is more than double the corresponding decline in physical health. Such psychological effects were often ignored during the initial stages of the pandemic. Yet, as countries gain some control over the contagion, they have expanded their focus in hopes of addressing these issues. To that end, we examine plausible causes of mental distress during the period of lockdown in Luxembourg.

Authorities and the public are beginning to address the mental health consequences of the COVID-19 outbreak. The consequences derive from both the direct impacts of the virus and the lockdown measures, which impose strict social distancing and limits to time spent outdoors. This attention is necessary. Mental health is one of the most important components of well-being<sup>2</sup>, and well-being is not only intrinsically important but positively affects traditional economic outcomes.<sup>3</sup> Indeed the World Health Organization changed their recommendation from social distancing to physical distancing at the end of March 2020, in order to mitigate the impacts of lockdown measures on mental health.<sup>4</sup> Social isolation is expected to affect the whole population and its effects on youth and the elderly have caught public attention.<sup>5</sup> Moreover, the effect of lockdown on the economy has caused unemployment to rise, which is known to affect the mental health of both the unemployed and employed, the latter through increased anxiety and insecurity.

**What is causing this distress? People may fear infection for themselves and loved ones or feel a general sense of anxiety, concern, or uncertainty. They may have lost or fear losing their job. Perhaps they are tired of working from home, feel isolated or depressed.**

Regarding employment, 6.4% of the respondents reported being furloughed due to COVID-19 under the scheme known as "partial unemployment" (chômage partiel); a further 2.7% are unemployed, and about one quarter [24.7%] believe their job security will worsen in the future. Each group is likely to experience lower well-being, yet these figures suggest the employment consequences of COVID-19 have actually been less severe in Luxembourg than in other countries.<sup>6</sup> For example, more than the 40 million people have filed for unemployment benefits since mid-March in the United States.<sup>7</sup> However, unemployment is still a concern. It is one of the most important factors contributing to people's feelings of well-being and mental health.<sup>8</sup> Even employed people are affected, fearing job loss, and becoming unemployed negatively affects well-being through more than the loss of income alone.<sup>9</sup> Through measures such as chômage partiel, Luxembourg attempted to save as many jobs as possible.

Declines in income are also a likely source of distress. Indeed, scholars have found that income losses have larger effects on people's well-being than equivalent income gains.<sup>10</sup> 16% of the population experienced declines in income. The main reported causes of income loss were the loss of employment [21%], the reduction of working hours [24%], lower wages or business profits [21%] and other or multiple [35%]. Nearly 60% of individuals reported a decrease in their expenses, too. However, we do not know by how much they decreased, and 16% of people incurred increased expenses.

Working conditions radically changed following the outbreak. At the time of the survey in April 2020, nearly 50% of the workforce worked from home, while another 21% alternated between home and their employer's premises. How might working from home affect one's well-being? Some people may enjoy the flexibility, while others have difficulty meeting their responsibilities; some have added household duties or feel cut off from their social networks – clearly these represent just a few of the experiences one might have and they are not mutually exclusive. However, the majority of people [55%] like working from home, while approximately 15% do not, and the remaining 30% neither like nor dislike it.

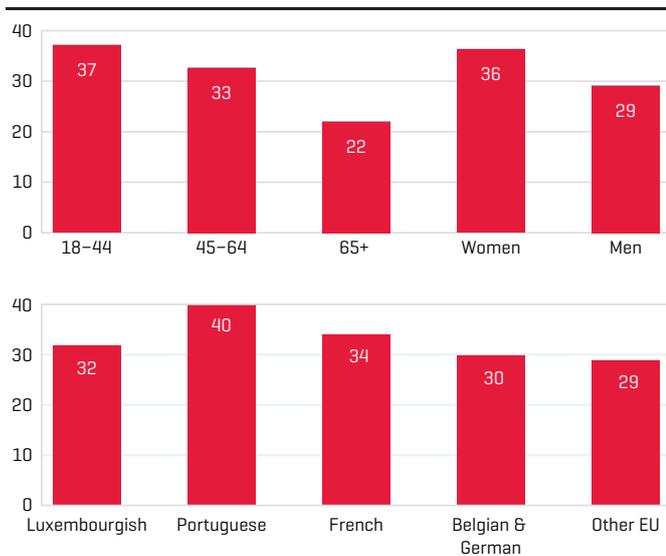
We do not have data on whether people feel socially isolated or lonely. This is an important dimension of mental health for which the United Kingdom has a dedicated ministry and the United States has declared an epidemic. In recent years, the share of people living alone in Luxembourg was 15% or lower, a little less than the EU average.<sup>11</sup> The current survey indicates 17% of people live alone. This might have consequences on well-being, as studies show that cohabitation with a partner leads to a lasting improvement in feelings of well-being.<sup>12</sup> However, living alone does not necessarily mean that someone feels lonely.

### Young people were most affected

As mentioned above, approximately one in three residents reported a decline in their mental health, but the decline varies across groups. Figure 1 presents this heterogeneity. Younger people fared worse than older. Of those aged 18-44, approximately 37% reported worsening mental health. This figure drops for each age group, with older doing better. Among the group 65 years and older, only 22% experienced worsening mental health. Compared to men, more women experienced worsening mental health. Across nationalities, the Portuguese fared the worst [40% experienced declines], while those from other EU countries fared best. Across regions in Luxembourg, the largest declines occurred in the South and Luxembourg city, with respectively 35 and 34% of those living there saying that their mental health declined. The best regional performer is the centre outside of Luxembourg city, with a decline of 28%.

As Figure 1 shows, the crisis has been experienced by different people in different ways. A natural question is, why? Perhaps Portuguese residents are on average younger, and that is why they fared worse, or there are more women living in the southern region of Luxembourg. We account for each factor simultaneously using regression analysis, a statistical technique for detecting and estimating relationships between multiple variables at a time.

FIGURE 1 : PERCENT OF THE POPULATION THAT REPORTED A DECLINE IN THEIR MENTAL HEALTH, BY AGE, GENDER, NATIONALITY, AND REGION.



Source: author calculations using the STATEC ILRES survey, April 2020.

FIGURE 1 : CONTINUED

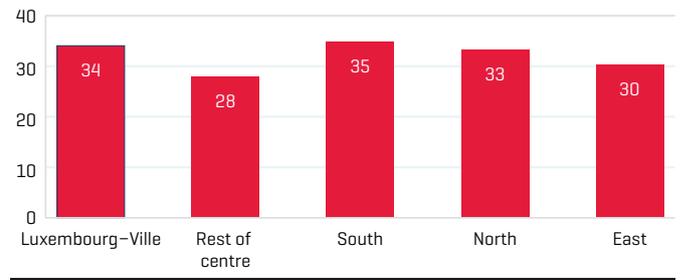
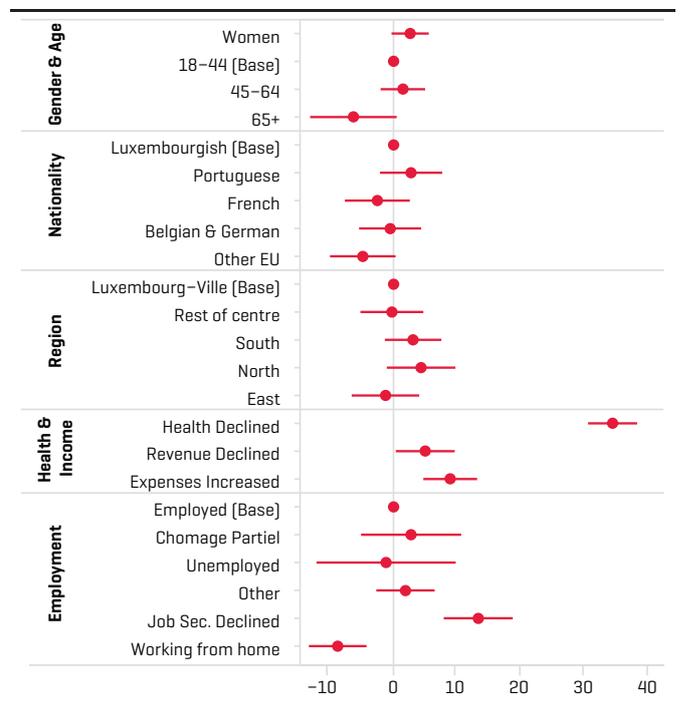


Figure 2 below shows the relations between declining mental health and factors such as demographic characteristics, region of residence, changes to health and income, employment status, feeling of job security, teleworking, and a few unreported factors, such as education.

FIGURE 2 : MENTAL HEALTH DECLINE. CHANGE IN PROBABILITY (%) OF DECLINE ASSOCIATED WITH DIFFERENT CHARACTERISTICS



Source: author calculations using the STATEC ILRES survey, April 2020.

Notes: Horizontal lines represent confidence intervals, in which we are 90 percent sure the relation falls within. Base categories are references for which other categories are compared. For example, living in the various regions (e.g., North) is compared with living in Luxembourg-ville.

The estimates are based on a regression of mental health change for 2020 people on these characteristics as well as education and characteristics of the household: number of people living there, whether or not a child or elderly person lives there, whether the respondent lives in an apartment, house, or other and if it has external amenities (e.g. garden or terrace), and the number of people living there per room.

The results indicate women are more likely to report a decline in mental health [when simultaneously accounting for each of the other factors]; however, we are not certain enough of the estimate for it to be considered statistically significant. The bar represents the range in which we are 90% confident that the relation falls, and for women, the range includes zero. By age group, the middle age and older groups are also not statistically different from the comparison group of those 18-44 years old.

For gender and age, although the means presented in Figure 1 suggest there is a substantial difference between groups, the regression analysis indicates that the differences are in fact due to something else. The same is true of nationality and region. Put in other terms, regardless of nationality, region, gender, or age, individuals are not more or less likely to have reported a decline in their mental health. The same is true by level of education (not presented).

The most important factors associated with the decline in mental health are physical health, income, and employment characteristics (as presented in Figure 2). Someone that experienced a decline in their physical health is about 35% more likely to also experience a decline in their mental health. Similarly, if an individual's revenue decreased or expenses increased, they are more likely to report a decline, at about five and nine percent respectively. Somewhat surprisingly, being unemployed is not statistically related to declining mental health, however, that may be because they were unemployed prior to the pandemic and did not experience a further decline during the crisis. Job security does have the expected relation. Those who felt their job security had deteriorated since the beginning of confinement were about 13% more likely to experience a decline in mental health. While in contrast, those working from home were about nine percent less likely to report a decline in mental health.

As discussed above, other factors may also explain why people experienced declines in their mental health. It is difficult to measure the impacts of lockdown: staying at home, reduced contact with colleagues, friends, family, nature, and the uncertainty associated with the direction and implications of the pandemic. Also, we solely assess the short-term impacts of the pandemic. While declines in physical health, income, and job security are associated with declining mental health, people seem to enjoy working from home, and the government program, chômage partiel, is not statistically related to lower mental health. We know from previous research that there are long-term negative consequences of unemployment on mental health. We believe the government did well to implement chômage partiel in order to save jobs.

#### Notes:

- 1 In late April to early May 2020, STATEC commissioned the ILRES survey to understand the impacts of COVID-19 in Luxembourg.
- 2 Flèche, S., Layard, R., 2017. Do More of Those in Misery Suffer from Poverty, Unemployment or Mental Illness? *Kyklos* 70, 27–41.
- 3 Indeed, two papers from STATEC Research demonstrate the economic benefits of well-being: DiMaria, C.H., Peroni, C., Sarracino, F., 2019. Happiness Matters: Productivity Gains from Subjective Well-Being. *J. Happiness Stud.*  
O'Connor, K.J., 2020. Life satisfaction and noncognitive skills: effects on the likelihood of unemployment. *Kyklos*. doi:10.1111/kykl.12226
- 4 The difference between social distancing and physical distancing is that social interaction is still possible while being physically distanced, using technology such as phone calls, social and video apps.
- 5 Three sources shed light on the mental health issues associated with COVID19: (1) from the World Health Organization <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov-technical-guidance-OLD/coronavirus-disease-covid-19-outbreak-technical-guidance-europe-OLD/mental-health-and-covid-19>; (2) from the Gallup survey organization: <https://news.gallup.com/poll/295505/coronavirus-worries-surge.aspx>; and (3) from the OECD <http://www.oecd.org/coronavirus/policy-responses/covid-19-protecting-people-and-societies-e5c9de1a/#section-d1e426>.
- 6 The latest unemployment rate for Luxembourg is 6.9 percent (computed by STATEC in April), which is 1.5 percent higher than the previous year. However, this compares favourably to the EU average of the 7.4 percent (March 2020), and to other OECD countries. For example, in April the unemployment rates in the U.S. and Canada were respectively as high as 14.7 and 13 percent. (<http://www.oecd.org/sdd/labour-stats/unemployment-rates-oecd-05-2020.pdf>).
- 7 Source: <https://www.nytimes.com/2020/05/28/business/unemployment-stock-market-coronavirus.html>
- 8 Clark, A.E., 2018. Four decades of the economics of happiness: where next? *Rev. Income Wealth* 64, 245–269.
- 9 Luechinger, S., Meier, S., Stutzer, A., 2010. Why does unemployment hurt the employed?: Evidence from the life satisfaction gap between the public and the private sector. *J. Hum. Resour.* 45, 998–1045. Winkelmann, L., Winkelmann, R., 1998. Why Are the Unemployed So Unhappy? Evidence from Panel Data. *Economica* 65, 1–15.
- 10 De Neve, J.-E., Ward, G., De Keulenaer, F., Van Landeghem, B., Kavetsos, G., Norton, M.I., 2018. The asymmetric experience of positive and negative economic growth: global evidence using subjective well-being data. *Rev. Econ. Stat.*
- 11 Source: EUROSTAT: Distribution of population by household types - EU-SILC survey [TESOV190]
- 12 Zimmermann, A.C., Easterlin, R.A., 2006. Happily Ever after? Cohabitation, Marriage, Divorce, and Happiness in Germany. *Popul. Dev. Rev.* 32, 511–528.

Cette publication n'engage que le STATEC  
Pour en savoir plus:

**Chiara Peroni**  
**Kelsey J. O'Connor**

[info@statec.etat.lu](mailto:info@statec.etat.lu)

(+352) 247-84219

[www.statistiques.lu](http://www.statistiques.lu)

ISSN 2304-7135