

# THE COVSOCIAL PROJECT

How did Berliners  
feel and react during  
the COVID-19  
pandemic in 2020/21?

Changes in aspects of mental health,  
resilience and social cohesion

*Tania Singer, Sarah Koop, Malvika Godara*



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THE COVID-19 PANDEMIC IN 2020/21?

Changes in aspects of mental health,  
resilience and social cohesion

by Tania Singer, Sarah Koop, Malvika Godara

First edition



**SOCIAL**  
**NEUROSCIENCE**  
**LAB**

## IMPRINT

Research Group Social Neuroscience Lab

Max Planck Society, Berlin

First Edition

Layout: axeptDESIGN, Berlin

Cover Design: Sheila Seyfert-Menzel

### *Partner*

*Gefördert durch die Max-Planck-Gesellschaft und im Rahmen der  
Exzellenzstrategie von Bund und Ländern durch die Berlin University Alliance*



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# EXECUTIVE SUMMARY

The COVID-19 pandemic has had far-reaching effects on Berliners, encompassing their daily lives, mental health and psychological resilience, their feelings of belonging, trust and their social interactions. The CovSocial project aims to shed light on these crucial pandemic-related changes to the mental health and resilience of individuals as well as the changes to the fabric of Berlin society. With this first issue of the CovSocial report, we illustrate the descriptive findings on selected measures focusing on mental vulnerability, resilience and social cohesion, and show how these markers changed in a large sample of Berliners aged 18 to 65 during the first lockdown in March/April 2020, the re-opening in June 2020 and the second prolonged lockdown from November to March/April 2021.

## THE COVSOCIAL SAMPLE



The CovSocial sample was recruited using several strategies, such as sending letters to 56,000 individuals aged between 18 and 65 selected at random by the Citizens Registration Office of Berlin, the use of social media, distributing posters in public transport and chain referral. The CovSocial sample was largely representative of Berliners in terms of including a range of people from the various districts across the city, different age groups, income groups, different marital statuses and education levels. The sample was also comparable to other studies, which examined the psychological impact of COVID-19, on level of current or previous psychological disorders suffered by participants. Although the CovSocial sample had an over-representation of women and a slight over-representation of older age groups, it is comparable to most other studies based on convenience samples.

With respect to the situation during the pandemic restrictions in Berlin, more people lost their job in the first lockdown compared to the second lockdown. However, employment levels still remained 2-5% lower in the second lockdown than at pre-lockdown. Meanwhile, the amount of time spent working from home during the pandemic increased dramatically.

## MENTAL HEALTH AND VULNERABILITY



With respect to mental health and factors salient to psychological vulnerability, two distinct effects emerged during the course of the pandemic: an ***acute first lockdown effect*** and a ***second lockdown fatigue effect***.

Participants reported an acute increase in ***depressiveness, anxiety, loneliness and stress*** during the first lockdown. Mental health improved considerably, i.e., depressiveness, anxiety, loneliness and stress decreased, during the

re-opening in June 2020. However, **during the second lockdown** we witnessed **a lockdown fatigue effect**, meaning that depressiveness, loneliness and stress kept increasing with each passing month of the lockdown. Consequently, the second lockdown fatigue effect on mental health resulted in even greater levels of depressiveness, stress and loneliness in March-April 2021 than compared to what was observed during the first lockdown a year earlier in 2020.

Women suffered from depressiveness and loneliness more intensely during the two lockdowns compared to men, and the 31-50 age group were the most stressed during both lockdowns.

The **fear of running out of basic necessities such as food, toilet paper and disinfectants** and the phenomenon of **hoarding** toilet paper and disinfectants were only seen during the first lockdown, probably because after a while people saw that stores were not running out of basic products. In contrast, the **fear of job loss, not having enough money, the threat to life** as well as the **fear of potential economic, political and international crises** was higher in the first lockdown, but still remained relatively elevated during the longer second lockdown compared to pre-pandemic levels.

Furthermore, during both lockdowns people expressed an increased **fear of getting infected with diseases or viruses** and of the **health system becoming overloaded**. These pandemic-related fears were especially evident in women. Interestingly, however, while people were more worried about the prospect of their **family and friends getting the virus** than about contracting the virus themselves in the first lockdown, in the second lockdown they became increasingly **burdened by their own mental health problems**. This could be a consequence of the second lockdown fatigue effect associated with accumulated mental health challenges.

**Psychosomatic complaints**, such as back pain, exhaustion and sleep disorders, were also affected by the acute first lockdown effect and the second lockdown fatigue effect. But interestingly, complaints of common cold symptoms showed a different pattern, and declined during the two lockdowns compared to pre-pandemic levels in January 2020.

Furthermore, people indicated feeling considerably more burdened by **conflicts with family and friends, problems with childcare and housing conditions, limitations on social contact and travel, and the negative news coverage**

during both the first and second lockdowns. Interestingly, and perhaps in contrast to mainstream narratives, problems concerning childcare were experienced equally by men and women during the first lockdown and even slightly more by men in the second lockdown, in contrast to before the pandemic where women reported feeling more burdened by childcare.

In general, when looking at all vulnerability factors, **women and the youngest age groups** often emerged as the more vulnerable groups who suffered most from the pandemic. Although these groups were often already more disadvantaged in terms of their mental health profiles before the lockdowns, for example women already feeling more stressed and anxious and the youngest age group (aged 18-25) being the most depressed, lonely, anxious and stressed of all age groups even in January 2020 before the lockdown.



## RESILIENCE

With respect to **psychological resilience**, i.e., factors that help an individual thrive in the face of adversity, we saw a parallel trend. Again, we observed the two distinct effects **of acute lockdown shock effect** in the first lockdown and **second lockdown fatigue effect** during the longer second lockdown.

In terms of **emotional well-being**, the overall positive emotional state of people before the pandemic in January 2020 fell dramatically, and people reported feeling mostly negative emotions during the first lockdown. This mostly negative emotional state became positive after the re-opening in June 2020 but changed drastically again during the second lockdown with people feeling increasingly negative, such that their emotional state was more negative in March-April 2021 than what had been observed in the same people during the first lockdown a year earlier in 2020. These effects were especially visible among **women and people in the 31-50 age group**. However, women were already reporting a less positive emotional state before the lockdown in January 2020. This pattern related to negative emotions mirrors the pattern of increased stress seen in the same middle-aged age group and women during the two lockdowns. The usual advantage of living with others making you

happier than living alone interestingly disappeared during the first lockdown, where people reported being equally unhappy whether living alone or with others.

**Optimism, life satisfaction and recovery after stressful events** decreased markedly owing to an acute first lockdown effect. During the re-opening in June 2020, we saw higher levels of optimism, life satisfaction and the ability to bounce back from stressful events again. However, all these adaptive capacities declined again during the second lockdown, and optimism and the ability to recover from adversity decreased further with each passing month. This second **lockdown fatigue effect** led to even lower levels of optimism and ability to recover from adversity in March-April 2021 compared to the first lockdown at the same time in the previous year.

Finally, the **coping strategies** of how to deal with challenges and adversity also changed during the pandemic. During the lockdowns, especially in the first lockdown, people generally didn't try to **change their situation** as much to cope with stress and also made fewer **plans for the future**. In contrast, people indicated that they **accepted things and situations** more in order to cope with the stress of the first lockdown. However, the use of this strategy declined in the second lockdown, along with the use of **humour** as a coping strategy. People used **getting out in nature** and **physical exercise** as coping strategies more during the first lockdown (also when compared to the same period at the end of the second lockdown) as well as during the re-opening in June 2020, but not as much in the second lockdown.

## SOCIAL COHESION



With respect to ***social cohesion***, i.e., the aspects that bond the members of a society to one another, we also witnessed the two effects of a ***first acute lockdown shock effect*** and a ***second lockdown fatigue effect***.

***Social and political participation*** decreased drastically due to the acute first lockdown effect, and then political participation again witnessed a sustained decline every month during the second lockdown due to the lockdown fatigue.

***Trust*** in friends/family and in neighbours remained stable throughout the pandemic. However, ***trust in institutions such as the German healthcare system, the Federal Chancellor and the German government*** witnessed a marked decline during the end of the second lockdown. Interestingly, trust in institutions such as the German police, the media or the Senate of Berlin was overall higher than trust in neighbours or fellow citizens.

The ***frequency of personal interactions and contact*** with partners remained stable during the pandemic, and was surprisingly experienced as being equally pleasant throughout the entire pandemic as beforehand. In contrast, personal interaction with ***family, friends, colleagues, superiors and others*** became less frequent during the pandemic. Furthermore, these social interactions, if they took place at all, were also ***experienced as being less pleasant*** as compared to before the pandemic in January 2020. In order to compensate for a reduction in personal interactions, people, ***especially women, spent more time online to nurture social bonds*** during the lockdowns, and accordingly ***the desire to use social media*** increased during the lockdowns.

Lastly, the ***sense of belonging*** to friends, neighbours, Berlin, Germany, Europe and the world at large showed a decline during the first lockdown. The feelings of belonging to Germany, Europe and the world at large again continued to decline in the second lockdown.

## DISCLAIMER

In this publication we exclusively present descriptive results. Peer-reviewed publications, including detailed statistical analyses with significance levels, will follow in the next few months, and will be featured in a second edition of this report. Furthermore, we present an overview of just some of the total of more than 100 measures we included in the study. For further information about the measures, please see: [osf.io/jvb98](https://osf.io/jvb98). The data collected on various demographic groups (e.g., income, education etc.), context variables (e.g., living situation, health status etc.), trait characteristics (e.g., neuroticism, optimism etc.) and biomarkers (e.g., genetics, cortisol etc.) as well as the impact of their interactions on markers such as vulnerability, resilience and social cohesion will be presented at a later stage in scientific, peer-reviewed publications and in future editions of this report.







# INTRODUCTION TO THE COVSOCIAL PROJECT

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## 1.1 ABOUT COVSOCIAL

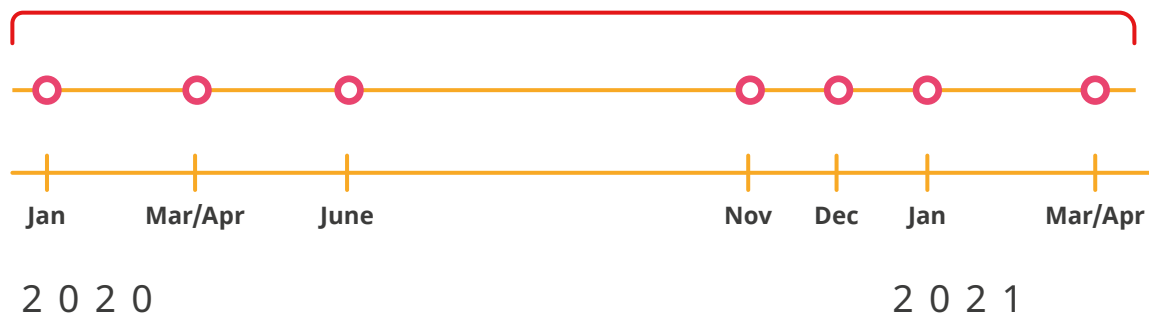
The SARS-CoV-2 pandemic has had far-reaching consequences on daily lives across the globe owing to the economic ramifications and social restrictions brought about by the spread of COVID-19 and the lockdowns imposed to curb its spread.

The *CovSocial project* ([www.covsocial.de](http://www.covsocial.de)) aims to unravel the impact of the pandemic and the associated lockdowns on various aspects of mental health, psychological resilience and social cohesion among the people of Berlin.

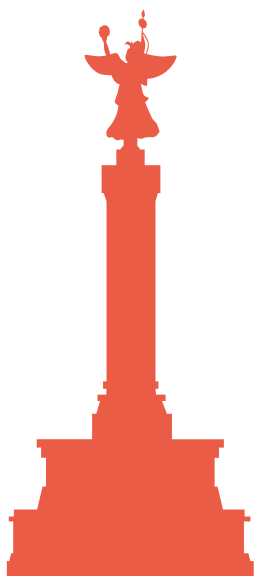
In its first phase, the project focused on examining the psychosocial impact of the pandemic and lockdowns among a sample of Berliners during the first lockdown in March/April 2020, the re-opening in June 2020 and the second lockdown from November 2020 until March/April 2021. In its second ongoing phase, the project will evaluate whether brief online psychological interventions can alleviate the negative psychosocial impact of the pandemic and the lockdowns in a sub-sample of Berliners. This publication will focus on the findings from the first phase of the project.

### *The CovSocial Project:*

#### PHASE 1



## 1.2 DESIGN



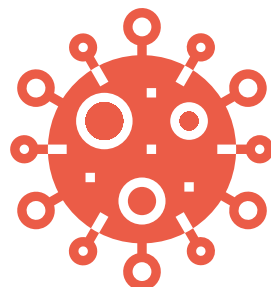
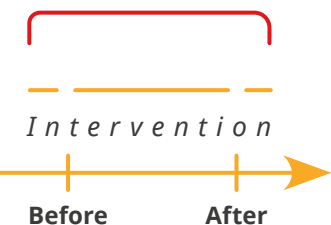
In **Phase 1 of the project**, a sample of Berliners recruited from the wider local population were followed over a period of several months in 2020 and 2021.

For 7 different points in time, participants provided information about their mental health, how they coped with stress, and about their social interactions and feelings of trust and belonging towards others.

Participants also provided saliva samples, which are being used to evaluate the genetic embedding of risk for mental health problems resulting from stress.

**Phase 2 of the project** will take place among a smaller subgroup of the participants in Phase 1. A sample of approximately 300 Berliners will undergo various socioemotional and mindfulness-based online interventions. The impact of the interventions on aspects of mental health, stress, loneliness, psychological resilience, empathy, compassion and prosocial behaviour will be examined by comparing levels before and after the interventions.

### PHASE 2



## 1.3 WHO WE ARE

The CovSocial project is headed by Prof. Dr. Tania Singer, who is the scientific head of the Social Neuroscience Lab at the Max Planck Society, located in Berlin, Germany. The project is funded by the Max Planck Society, and Phase 1 has additionally been supported by a Berlin University Alliance grant awarded to Prof. Dr. Singer and Prof. Dr. Mazda Adli within the framework of the federal and state excellence strategy. The evaluation and analysis of the genetic markers is funded by the Max Planck Institute of Psychiatry in Munich. The project is conducted in cooperation with researchers from the Charité – Universitätsmedizin Berlin, the Humboldt University of Berlin, and the Max Planck Institute of Psychiatry in Munich.



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**SOCIAL  
NEUROSCIENCE  
LAB**

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This publication has been conceptualised, executed and prepared by a team of authors comprising of Prof. Dr. Tania Singer, Sarah Koop and Dr. Malvika Godara.



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*Gefördert durch die Max-Planck-Gesellschaft und im Rahmen der  
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The project has been conducted with the support of a team of post-doctoral researchers, PhD researchers and other support staff at the Social Neuroscience Lab, including student assistants and interns.

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For further information about our whole team, see our webpage [www.covsocial.de](http://www.covsocial.de)

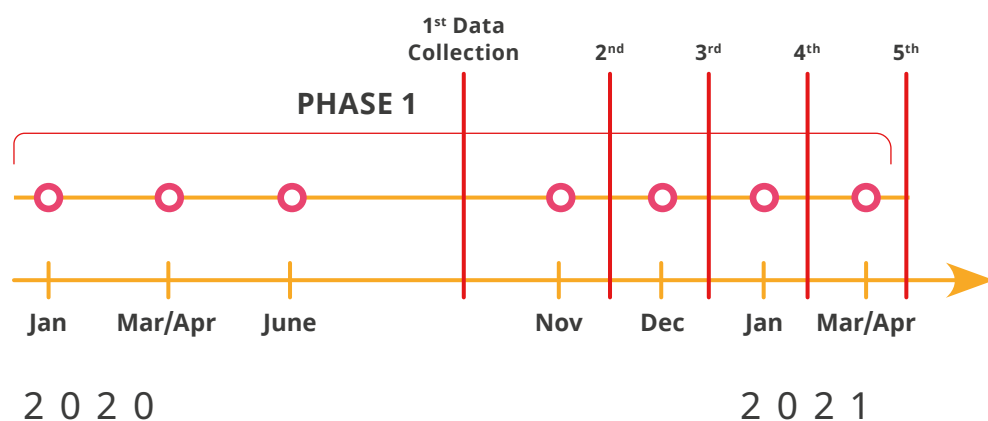
## 1.4 MEASURES

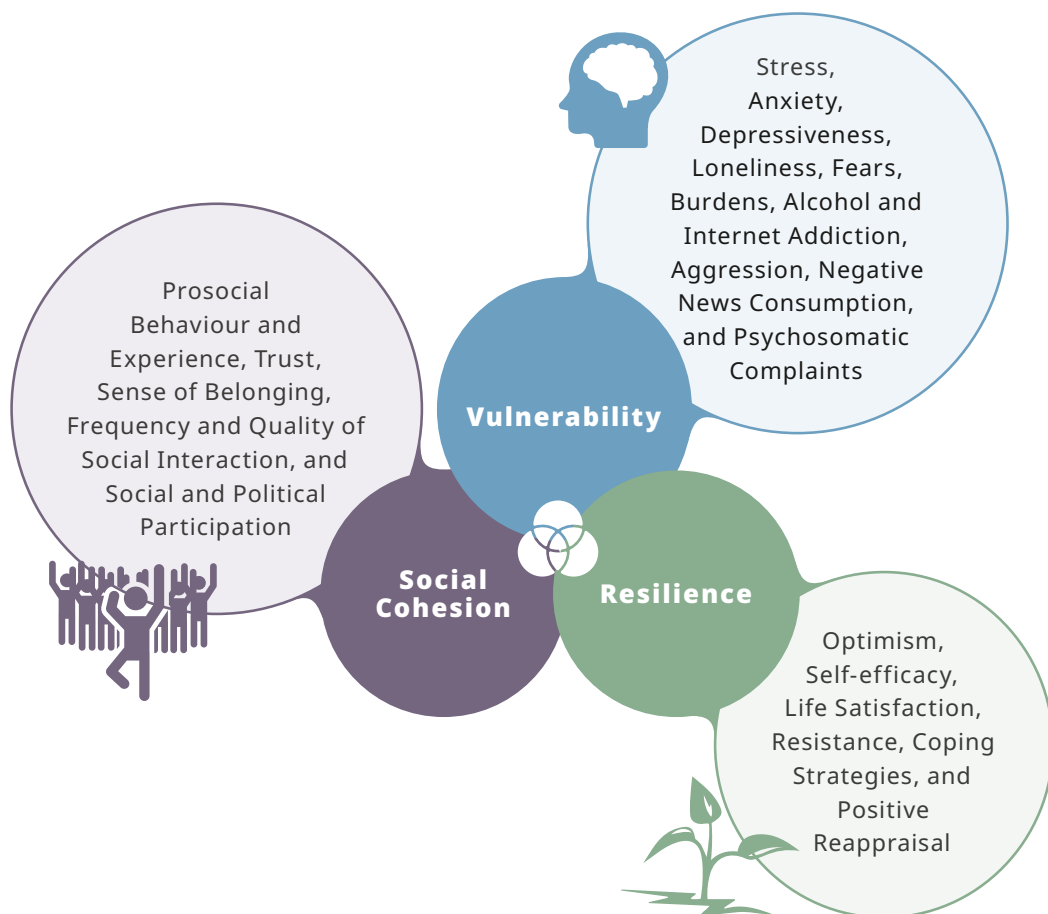
This publication focuses on the findings from the first phase of the project. In the first phase, we were interested in seeing how our sample of Berliners responded differently to questions about their general life circumstances, their emotional state, and aspects of their mental health and daily social behaviour.

The responses of the participants were assessed ***across the following 7 time-points***: shortly before the pandemic (January 2020), during the first lockdown (mid-March – mid-April 2020), during the easing of restrictions (June 2020), during the partial lockdown (November 2020) and during the second lockdown (December 2020, January 2021, and March/April 2021).

The first three timepoints were assessed retrospectively from September to November 2020. The last four assessments occurred shortly after the respective timepoint. For example, the assessment for the November 2020 timepoint was completed by participants in December 2020.

### *The CovSocial Project: Phase 1*





Participants answered questions about various aspects related to **vulnerability**, **resilience** and **social cohesion**. They also answered questions about changes in their living conditions and finances due to the pandemic and how much time they spent outdoors during the lockdowns.

They also indicated how much fear they had of running out of basic needs and how they behaved with respect to those fears. For example, the fear of running out of toilet paper and their behaviour in terms of stocking up on toilet paper.

Lastly, participants also provided information on a range of socio-economic demographic categories. In the current report, we present an **overview** of only a small number of the more than **100 measures** in total that we included in the study. For further information about the measures, please see: [osf.io/jvb98](https://osf.io/jvb98).

## 1.5 WEB APP

Participants provided their responses via an **online web app** created specifically for the purpose of the CovSocial project.

They made an account on the web app, and using this account then provided responses to various questions. The web app was created by CosmoCode GmbH for the Max Planck Society.



### WELCOME PAGE OF THE WEBAPP



COVSOCIAL

LOGOUT

Liebe\*r Teilnehmer\*in,

willkommen im Fragebogenbereich unserer Studie. Schön, dass Sie dabei sind!

Wir empfehlen Ihnen, die Fragebögen auf einem Computer oder Laptop auszufüllen. Sie sind nicht für ein Smartphone vorgesehen.

Die Fragebögen sind in 7 Blöcke aufgeteilt. Bitte nehmen Sie sich die Zeit, die Sie brauchen und bearbeiten Sie die einzelnen Blöcke jeweils vollständig. Erst nachdem Sie einen Block beendet haben, werden Ihre Antworten automatisch gespeichert. Sie werden dann hier auf diese Seite zurückgeleitet, können sich oben ausloggen und jederzeit in den nächsten **zwei Wochen** über das Login der Homepage ([www.covsocial.de](http://www.covsocial.de)) wieder einloggen um fortzufahren.

*Vielen Dank, dass Sie an der CovSocial Studie teilnehmen!*



### AN EXAMPLE OF THE TYPE OF VULNERABILITY QUESTIONS PARTICIPANTS ANSWERED ON THE WEBAPP

The figure shows the COVSOCIAL logo at the top left, consisting of a stylized 'C' made of colored dots and the text 'COVSOCIAL'. To the right is a 'LOGOUT' button. Below this is a survey result for the period 'Mitte März - Mitte April 2020 (Lockdown)'. The question is 'Wie einsam haben Sie sich zwischen Mitte März und Mitte April 2020 gefühlt?'. A horizontal scale from 0 to 8 is shown, with 'gar nicht' at 0 and 'sehr einsam' at 8. An orange circle indicates a response of 3.

**COVSOCIAL**

LOGOUT

**Mitte März - Mitte April 2020 (Lockdown)**

*Wie einsam haben Sie sich zwischen Mitte März und Mitte April 2020 gefühlt?*

gar nicht sehr einsam

0 1 2 3 4 5 6 7 8

### AN EXAMPLE OF THE TYPE OF RESILIENCE QUESTIONS PARTICIPANTS ANSWERED ON THE WEBAPP

**Meine Gefühlslage zwischen Mitte März und Mitte April 2020 war geprägt durch (bitte das passende Kästchen ankreuzen):**

The diagram is a 10x10 grid with the following labels:

- Top: Hohe Erregung / Aktivierung
- Bottom: Niedrige Erregung / Aktivierung
- Left: Unangenehme Gefühle
- Right: Angenehme Gefühle
- Top-left: z.B. Stress, Ärger
- Top-right: z.B. Begeisterung, Aufregung
- Bottom-left: z.B. Traurigkeit, Depression
- Bottom-right: z.B. Entspannung, Zufriedenheit

A single cell in the center of the grid (5th column, 5th row from bottom) is highlighted in yellow.

## AN EXAMPLE OF THE TYPE OF SOCIAL COHESION QUESTIONS PARTICIPANTS ANSWERED ON THE WEBAPP

Wie häufig hatten Sie **online** Kontakt mit ...

	nicht vorhanden	nie	selten	manchmal	häufig	sehr häufig
... Ihrem*r Partner*in?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... Ihren Familienmitgliedern?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... Ihren Freund*innen?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... Ihren Kolleg*innen?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... vorgesetzten Personen?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



COVSOCIAL

LOGOUT

Januar 2020 (vor der Krise)

**Ziehen Sie die Kreise so, dass sie Ihre Zugehörigkeit zu den folgenden Gruppen am besten darstellen.**

Hinweis: Je näher Sie die Kreise zueinander ziehen, desto zugehöriger fühlen Sie sich dieser Gruppe **im Januar 2020**.



Benutzen Sie den Schieberegler, um die Position der Kreise zu verändern.

## 1.6 SELECTION PROCEDURE OF THE SAMPLE



Participants were recruited from the population of Berlin during the period between August and November 2020. The main inclusion criteria involved being able to understand the German language and being registered as a resident of the city of Berlin at the time of the assessment.

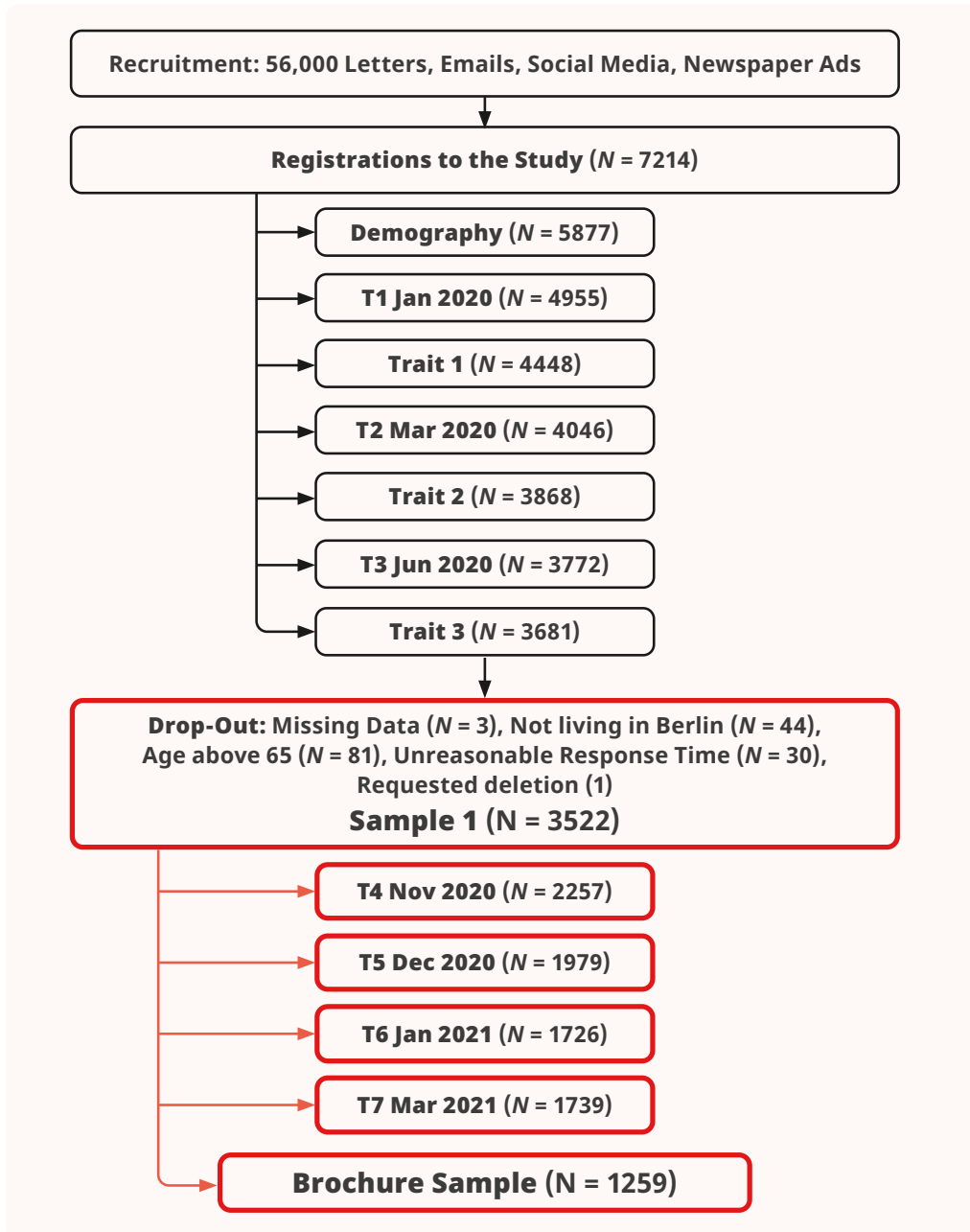


Participants were recruited through random sampling from the Berlin State Office for Civil and Regulatory Affairs (Landesamt für Bürger- und Ordnungsangelegenheiten), and a total of 56,000 individuals were contacted by letter. Furthermore, participants were also recruited via email newsletters from various universities, churches and sport clubs, social media, posters at Berlin public transport hubs as well as chain referral.

A total of 7612 individuals registered to take part in the study. During the course of the study, a number of participants dropped out at each stage (see schematic figure on the next page). After discounting the drop-outs and removing the outliers, a sample of **3522** Berliners completed the first three timepoints. After completing the last four timepoints, we had a sample of **1259** individuals who completed all seven timepoints up until March 2021.

In this publication, we present and discuss the findings from the data of these 1259 individuals in chapters 3 to 6.

## THE RECRUITMENT SCHEME OF THE STUDY



T1-T7 corresponds to the seven timepoints at which the participants completed the questions.

*Sample 1* indicates the number of participants who completed the first three timepoints and *Brochure Sample* indicates the number of participants who completed all seven timepoints, N = 1259.

## 1.7 DISCLAIMER

In this publication we exclusively present descriptive results. No statistical analyses or (hypothesis) tests were conducted. Peer-reviewed publications with detailed statistical analyses will follow in the coming months. The sample size of 3522 is used for chapter 2 and the sample size of 1259 is used for chapters 3, 4, 5 and 6. This difference is due to people dropping out from the sample during the course of seven timepoints. While 3522 participants provided information on context variables, which are presented in chapter 2, 1259 individuals completed all the questions on vulnerability, resilience and social cohesion for all timepoints. The representativeness of both the samples (3522 and 1259) to the Berlin population remained consistent with each other. Furthermore, this is the first report on the descriptive results from the CovSocial project, and a second, updated version will be released at a later stage. For most of the questions, a scale from 0 to 8 was used. If another scale was used, this will be pointed out in the text and indicated with the following symbol: ✦ To be better able to depict the relevant effects we have zoomed in on some figures to provide a better overview, so the scale might not be shown completely.















# 2

## THE COVSOCIAL SAMPLE

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2.2	Gender & sex	34
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2.5	Employment status & income	40
2.6	Marital status	42
2.7	Psychological diagnosis	44

## 2.1 WHERE DO THE PARTICIPANTS LIVE?

DISTRICT	BERLIN POPULATION (%)	THE COVSOCIAL PARTICIPANTS (%)
Pankow	10.86	15.54 
Mitte	10.23	11.9 
Charlottenburg-Wilmersdorf	9.12	11.33 
Treptow-Köpenick	7.26	8.49 
Steglitz-Zehlendorf	8.23	8.41 
Friedrichshain-Kreuzberg	7.7	7.92 
Tempelhof-Schöneberg	9.31	7.78 
Neukölln	8.75	7.53 
Lichtenberg	7.8	6.7 
Marzahn-Hellersdorf	7.16	5.23 
Reinickendorf	7.07	5.2 
Spandau	6.5	3.98 

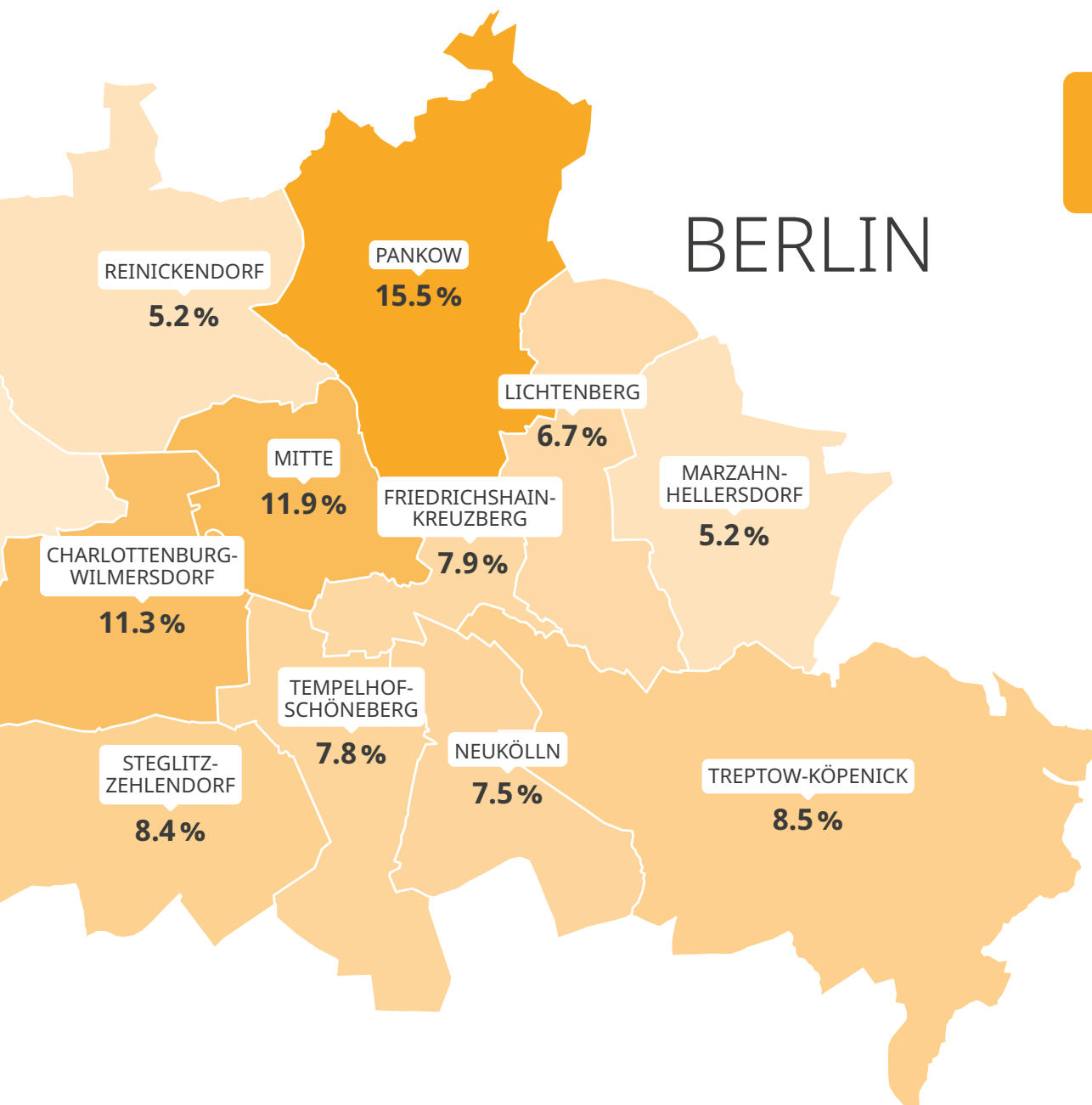
SPANDAU

4%

One -icon represents 10 participants who live in this district



The participants in the CovSocial sample come from all over Berlin. The **largest** share of participants comes from **Pankow** (15.5%) and the **smallest** share comes from **Spandau** (nearly 4%). The proportion of participants from the various districts of Berlin remains close to the actual proportion of Berliners living in these districts.

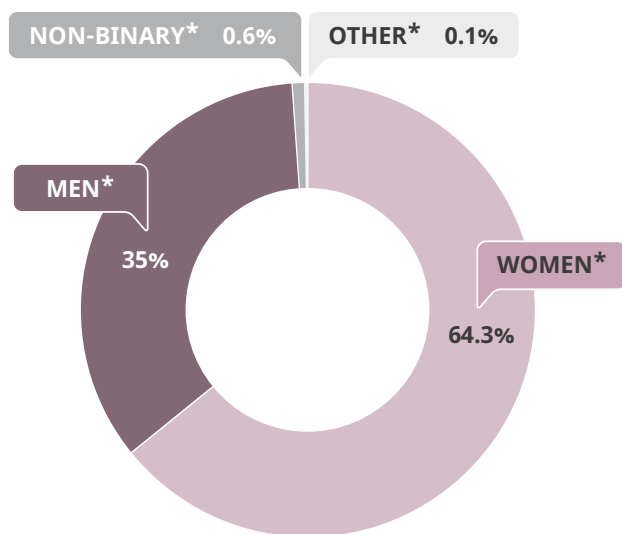


## 2.2 GENDER & SEX

The sample of Berliners that took part in the CovSocial project came from all spheres of life. Here, we will characterise our participants in terms of **socio-economic and demographic aspects**.

The sample comprised approximately **64%** participants identifying as **women** and **35%** identifying as **men**, while a small percentage of participants identified as non-binary or other. Although our sample consisted of more women (gender assigned at birth) than the actual representation in the Berlin population, this pattern is consistent with other studies from Germany<sup>1</sup>, Italy<sup>2</sup> and the USA<sup>3</sup> showing that women tend to take part in online and in-person research studies more often.

### COVSOCIAL PARTICIPANTS

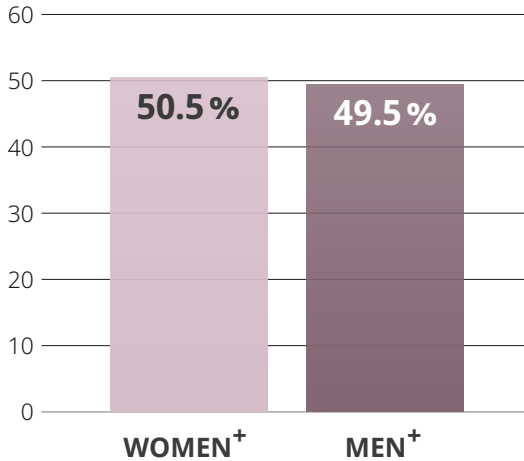


\* Gender identification indicated by participant

- 1 Veer, I. M., Riepenhausen, A., Zerban, M., Wackerhagen, C., Puhlmann, L. M., Engen, H., ... & Kalisch, R. (2021). Psycho-social factors associated with mental resilience in the Corona lockdown. *Translational psychiatry*, 11(1), 1-11.
- 2 Gualano, M. R., Lo Moro, G., Voglino, G., Bert, F., & Siliquini, R. (2020). Effects of Covid-19 lockdown on mental health and sleep disturbances in Italy. *International journal of environmental research and public health*, 17(13), 4779.
- 3 Rozenfeld, Y., Beam, J., Maier, H., Haggerson, W., Boudreau, K., Carlson, J., & Medows, R. (2020). A model of disparities: risk factors associated with COVID-19 infection. *International journal for equity in health*, 19(1), 1-10.

## BERLIN POPULATION

Source: Amt für Statistik Berlin-Brandenburg, 2019

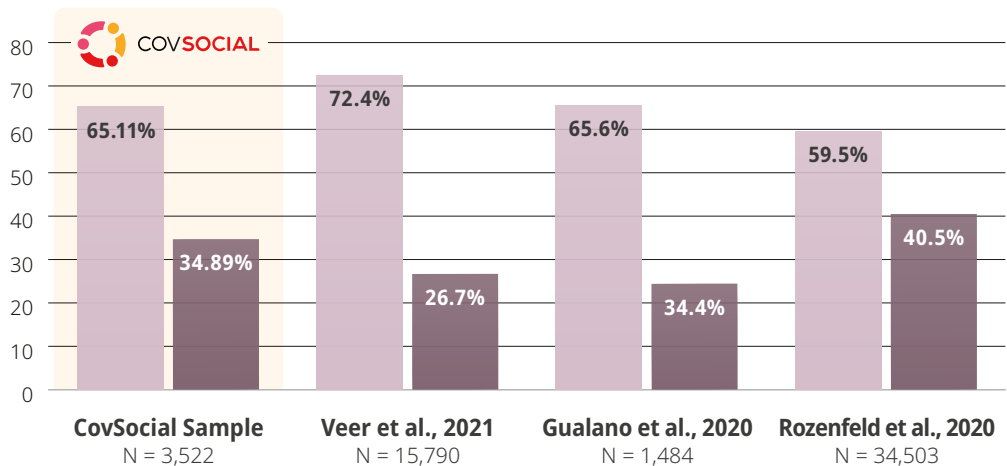


WOMEN<sup>+</sup>



MEN<sup>+</sup>

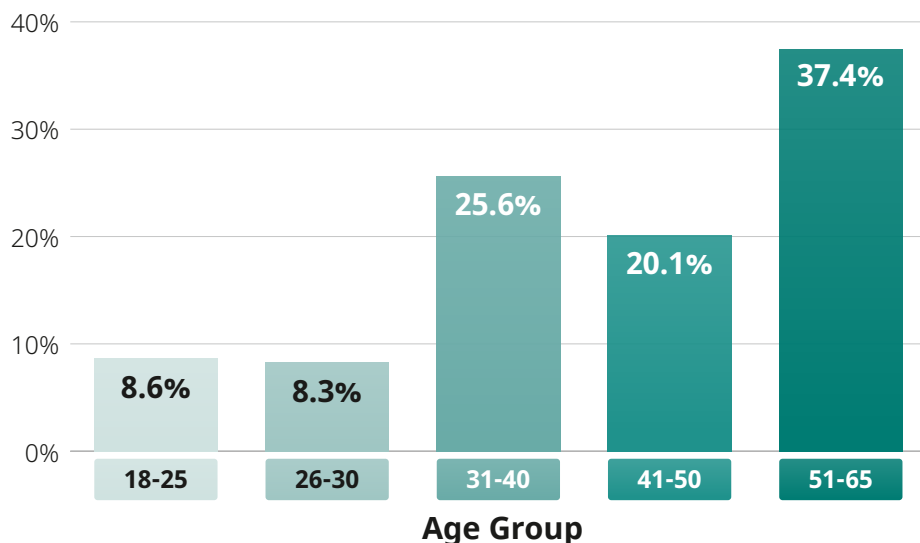
## OTHER STUDIES



<sup>+</sup> Gender assigned at birth (female or male)

## 2.3 AGE

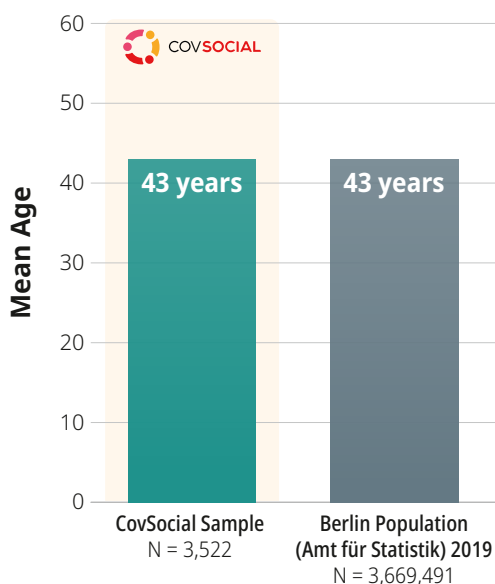
### COVSOCIAL PARTICIPANTS



The CovSocial sample covered a wide range of ages, although the two **largest age groups** represented in our sample were **51-65 and 31-40 years old**.

Out of the 64.3% of Berliners who are between 18 and 65 years of age, 7.2% are in the 18-25 category and 7.6% are aged 25-30. These numbers are close to the representation in our sample. The older age groups are more strongly represented in our sample compared to the Berlin population. However, the **mean age** in our sample of **43 years** is comparable to the Berlin population and other studies examining the psychological impact of the COVID-19 pandemic.

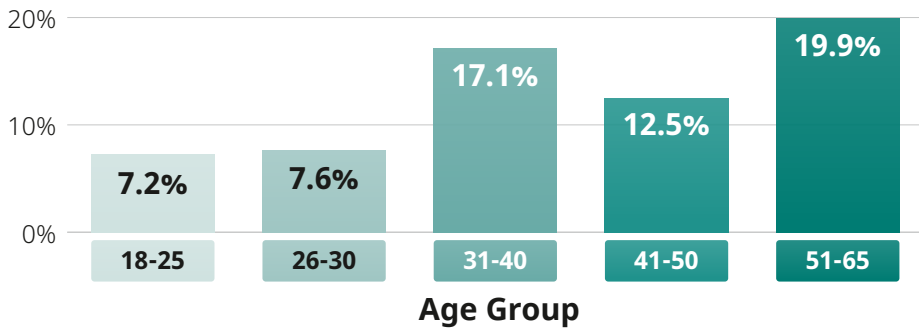
### MEAN AGE



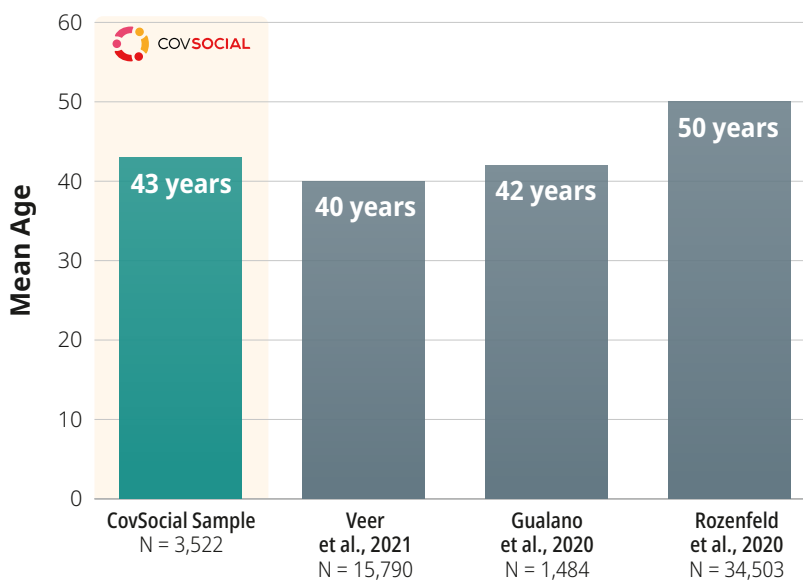
## BERLIN POPULATION

Source: Amt für Statistik Berlin-Brandenburg, 2019

Of the entire Berlin population (2019) 64.3% are within the age range of 18-65 years

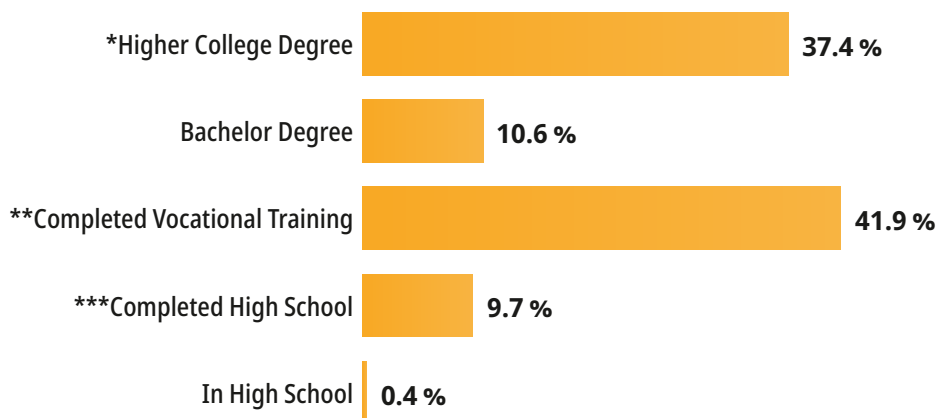


## OTHER STUDIES



## 2.4 EDUCATION

### COVSOCIAL PARTICIPANTS



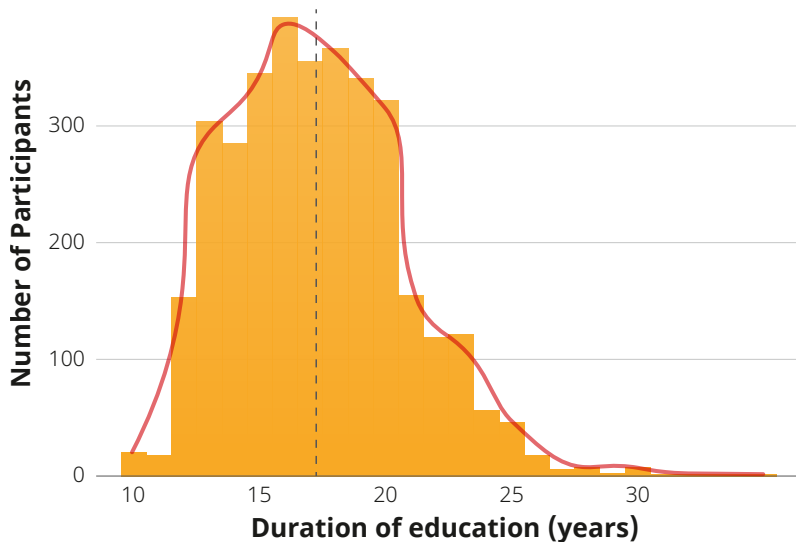
\* Diploma, Master, Magister, State Examination, PhD

\*\* Completed apprenticeship, vocational/collegiate school, preparatory service for service in public administration, 1-year training at health school, 2-3 year training course at a healthcare school, training as an educator, technical college in the GDR, master craftsman, technical school, administration and business academy or specialist academy

\*\*\* Still in vocational training (vocational preparation year, trainee, intern, student), no professional qualification and currently not in professional training

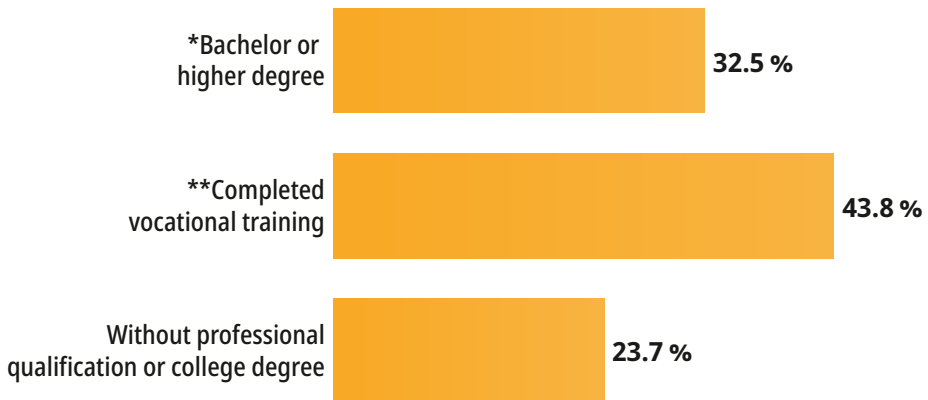
### DURATION OF EDUCATION

(from 1st grade to examination of highest degree)



## BERLIN POPULATION (from 15 years)

Source: Amt für Statistik Berlin-Brandenburg, 2019



\* Degree from a university of applied sciences or university college

\*\* Completed apprenticeship, vocational training, technical school, or technical school in the GDR

The participants in our sample indicated a wide range in terms of the total number of years they had spent in education, with a median of 17 years. Nearly **42%** of the participants indicated they had completed **vocational training**. This percentage is consistent with the nearly 44% of Berliners who have completed vocational training.

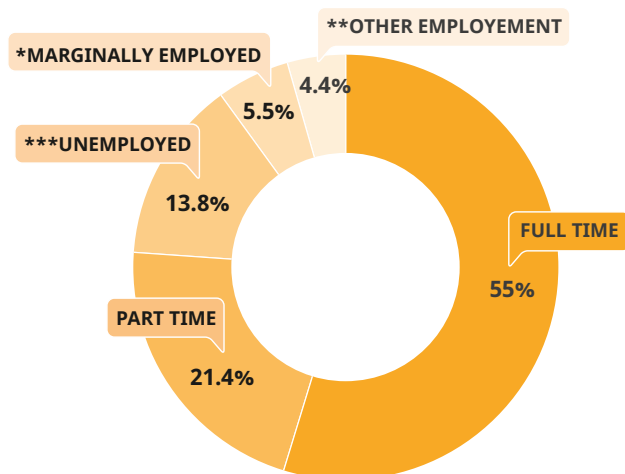
On the other hand, **48%** of individuals in the sample indicated having completed a **bachelor's or a higher** degree, which is higher than the Berlin average of 32.5%. However, approximately **10%** of the participants indicated they were in high school or had **completed high school but not any college or vocational training**, which is lower than the Berlin norm.



## 2.5 EMPLOYMENT STATUS & INCOME



### COVSOCIAL PARTICIPANTS

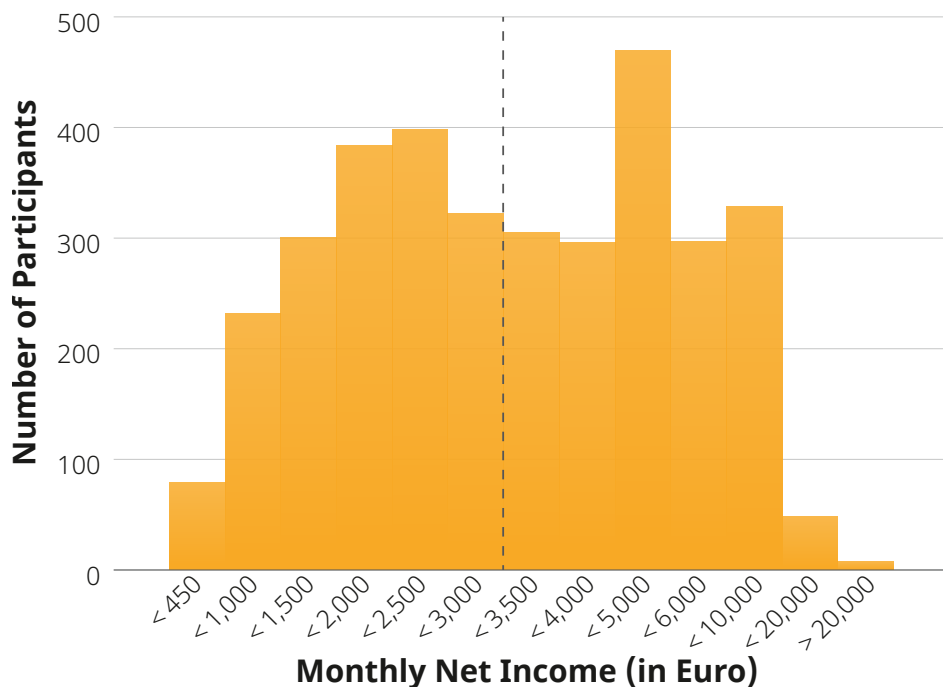


\* 450 euro job, mini job, "one-euro-job", occasionally/irregularly employed

\*\* Partial retirement, in vocational training/apprenticeship, in retraining, voluntary military service, federal voluntary service or voluntary social year, parental leave or other leave of absence

\*\*\* including pupils or students who do not work for money, unemployed, early retirees, retirees without extra income

### MONTHLY HOUSEHOLD NET INCOME





In our sample, more than half of all participants (**55%**) indicated that they were **employed full-time**. Meanwhile, approximately 21% indicated being employed part-time and 5.5% indicated being marginally employed.

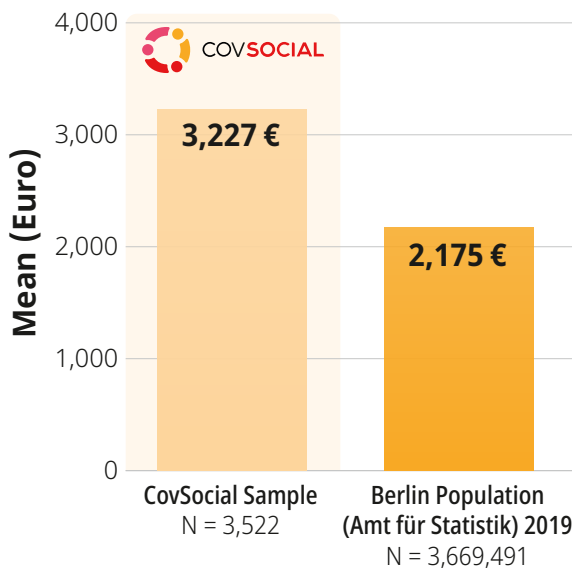
Furthermore, a wide range of net household income could be seen in the sample, with the median income range being €3,000-3,250. The mean income in our sample was €3,227 per month. This is more than the mean monthly net household income of the general population in Berlin in 2019.



## BERLIN POPULATION

Source: Amt für Statistik Berlin-Brandenburg, 2019

### AVERAGE MONTHLY NET INCOME



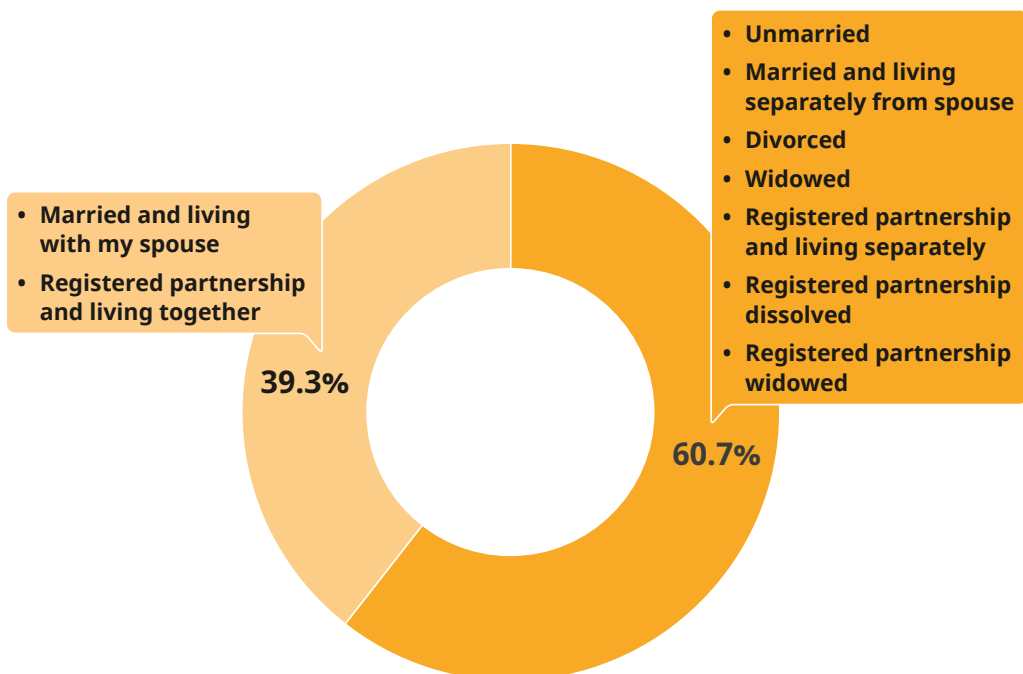
## 2.6 MARITAL STATUS

Nearly **61%** of the participants in the sample indicated that they were **single, separated, divorced or widowed** at the time of the study. On the other hand, approximately **39%** of the participants indicated being **married or cohabiting**.

These numbers are only slightly different from the Berlin average, in which 65.8% are either single, separated, divorced or widowed. The numbers are also fairly consistent with samples from other studies evaluating the psychological impact of the COVID-19 pandemic.



### COVSOCIAL PARTICIPANTS



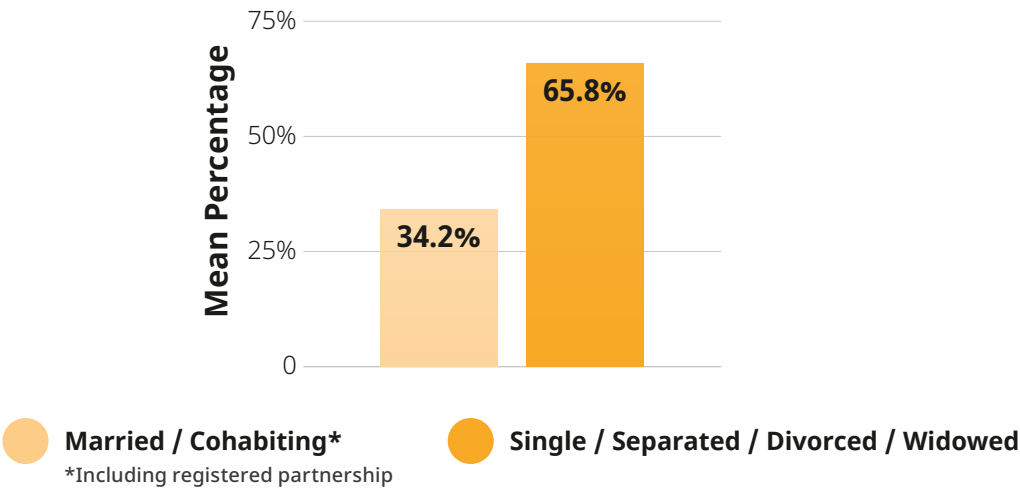
Married / Cohabiting



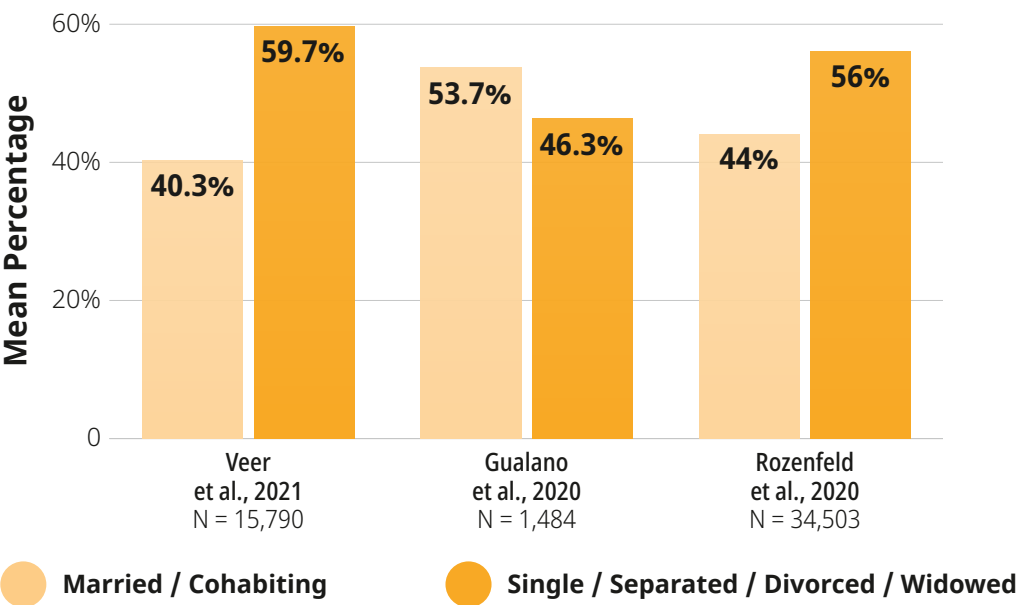
Single / Separated / Divorced / Widowed

# BERLIN POPULATION

Source: Amt für Statistik Berlin-Brandenburg, 2020



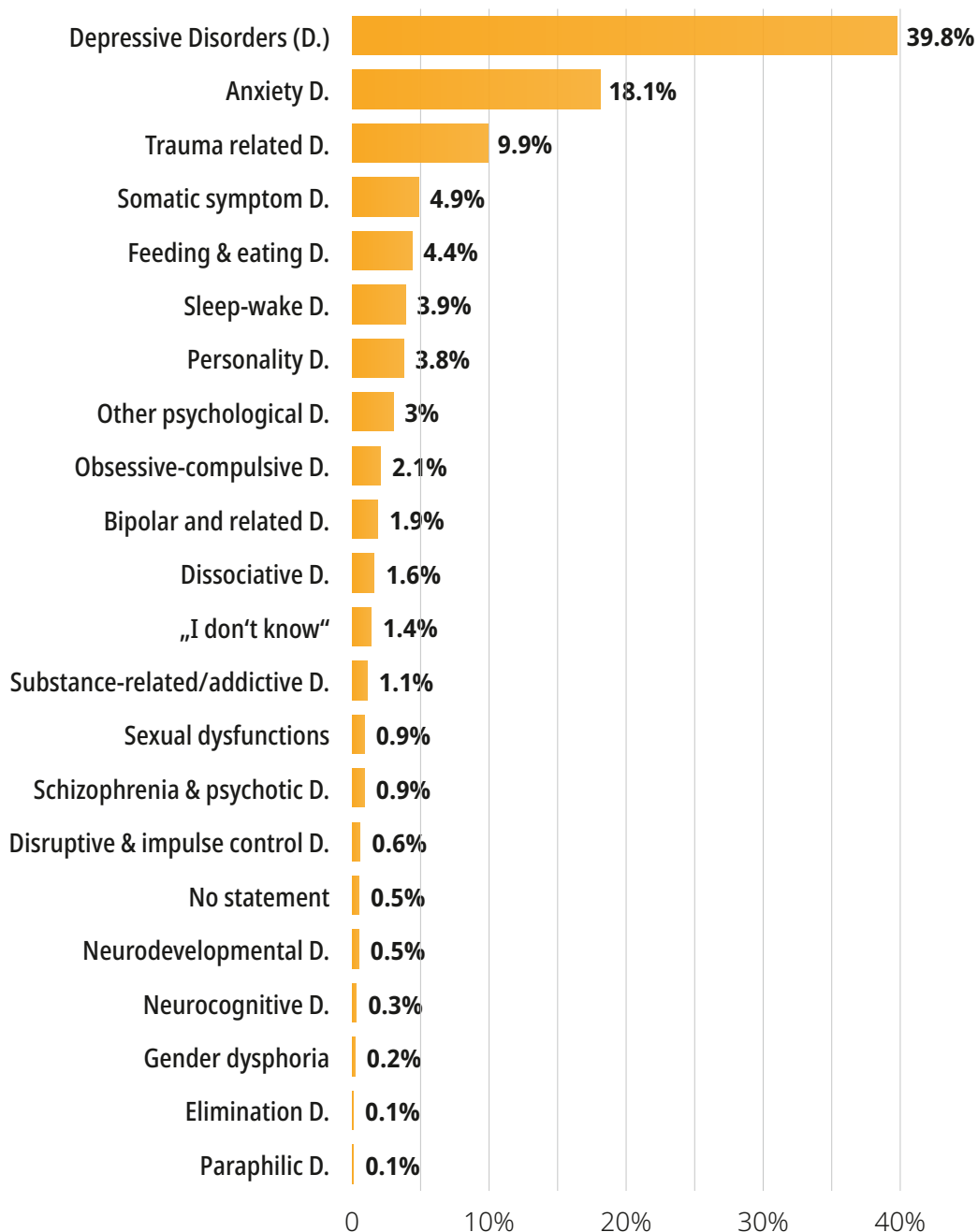
# OTHER STUDIES



## 2.7 PSYCHOLOGICAL DIAGNOSIS



### COVSOCIAL PARTICIPANTS

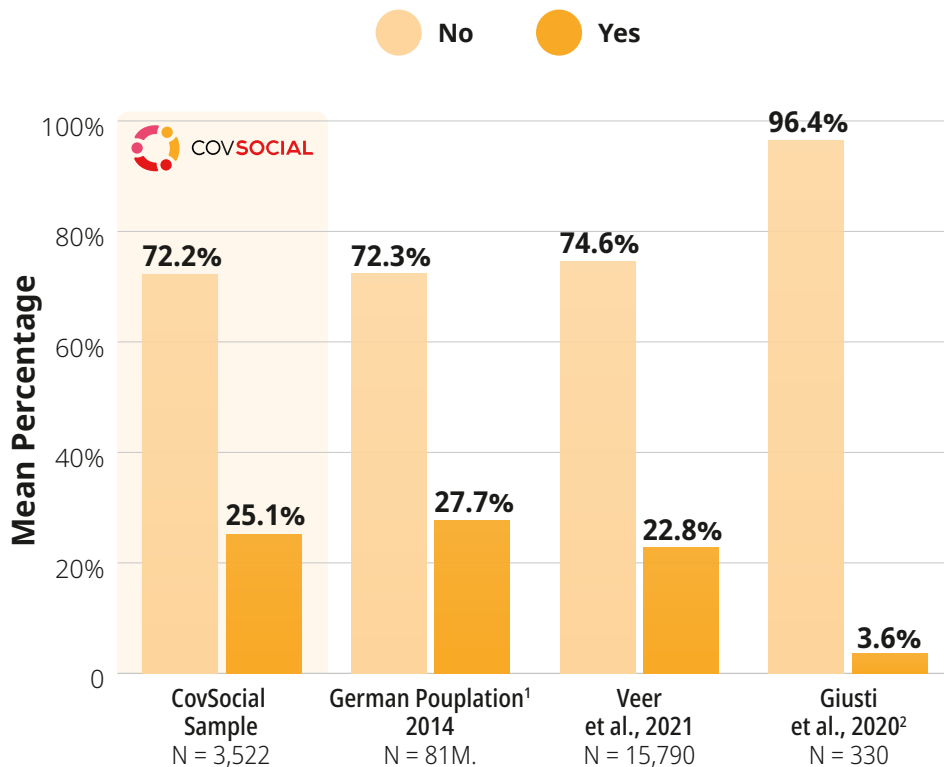


Approximately **25%** of the participants in the CovSocial sample indicated that they had been **diagnosed** as suffering from a psychological disorder either currently or previously.

Amongst these individuals, nearly 40% indicated that they had been diagnosed with a depressive disorder, approximately 18% indicated having been diagnosed with an anxiety disorder and nearly 10% indicated a trauma-related disorder.

## GERMANY & OTHER STUDIES

HAVE YOU EVER BEEN DIAGNOSED WITH A PSYCHOLOGICAL DISORDER BY A PROFESSIONAL (MEDICAL DOCTOR, PSYCHOLOGIST)?



- 1 Jacobi, F., Höfler, M., Strehle, J., Mack, S., Gerschler, A., Scholl, L., ... & Wittchen, H. U. (2014). Mental disorders in the general population: Study on the health of adults in Germany and the additional module mental health (DEGS1-MH). *Der Nervenarzt*, 85(1), 77-87.
- 2 Giusti, E. M., Pedrolì, E., D'Aniello, G. E., Badiale, C. S., Pietrabissa, G., Manna, C., ... & Molinari, E. (2020). The psychological impact of the COVID-19 outbreak on health professionals: a cross-sectional study. *Frontiers in Psychology*, 11.



# 3

## THE COVSOCIAL SAMPLE IN LOCKDOWN

3.1	COVID-19 risk group	48
3.2	Employment & work	50
3.3	Covid-related behaviour	52

## 3.1 COVID-19 RISK GROUP

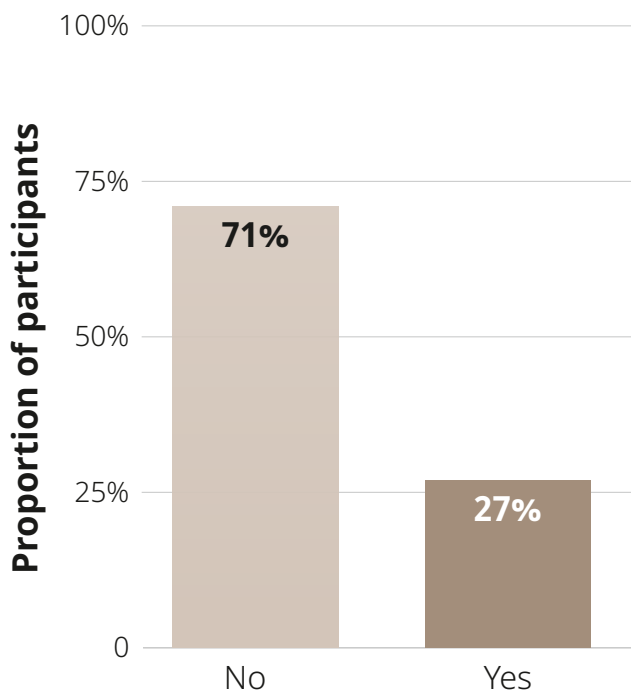
Overall, 27% of the participants in the CovSocial sample indicated that they belonged to a biologically at-risk group which increased their susceptibility to COVID-19.



### BIOLOGICAL RISK

DO YOU BELONG TO THE COVID-19 AT-RISK GROUP?

(e.g. due to heart disease, high blood pressure, lung disease, immunodeficiency or other risk-factors)



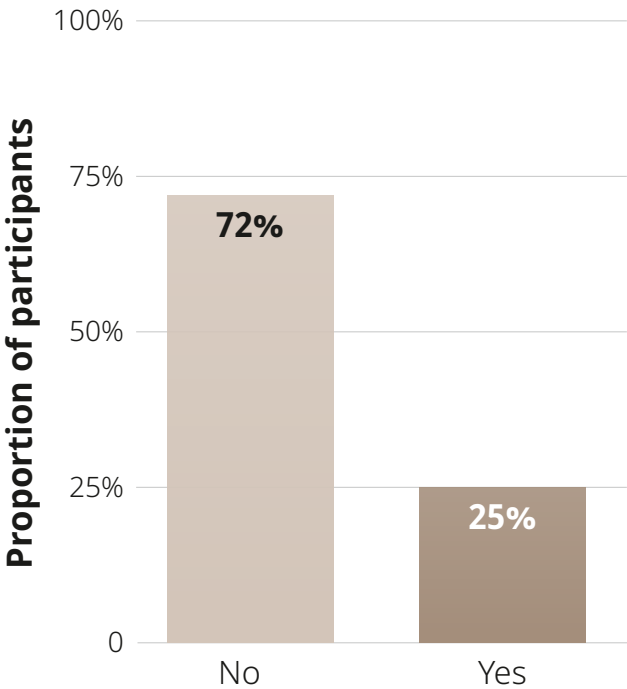
Participants could select "No statement" if they did not want to reveal whether they belonged to a biological or professional risk group.



Moreover, 25% of our sample indicated that they worked in a profession which exposed them to an increased risk of being infected by COVID-19.

PROFESSIONAL RISK

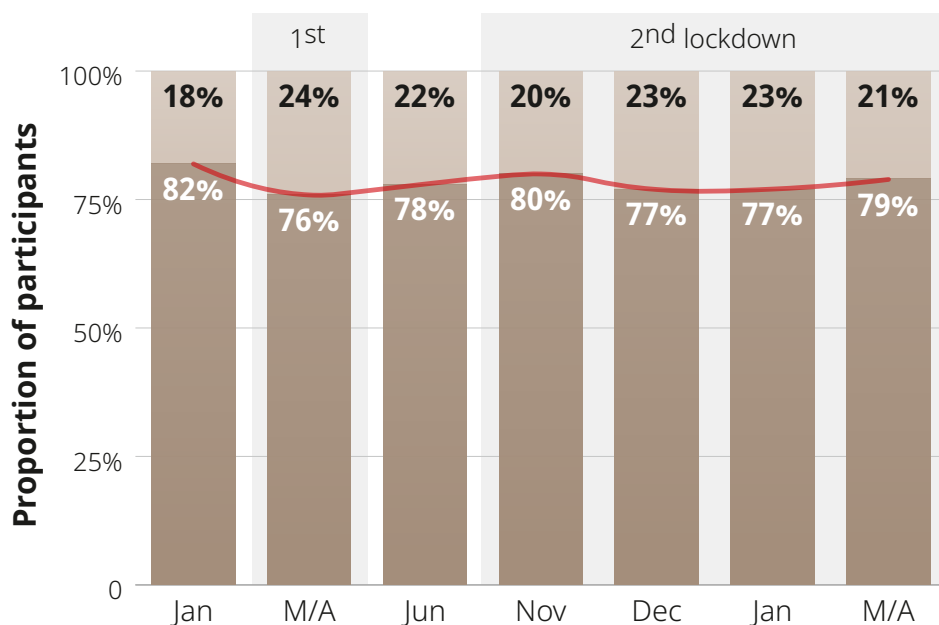
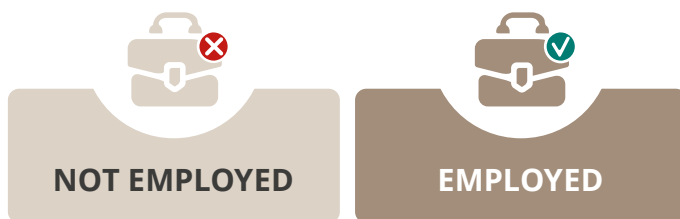
DO YOU WORK IN A PROFESSION EXPOSED TO AN INCREASED RISK FOR COVID-19 INFECTION?



## 3.2 EMPLOYMENT & WORK

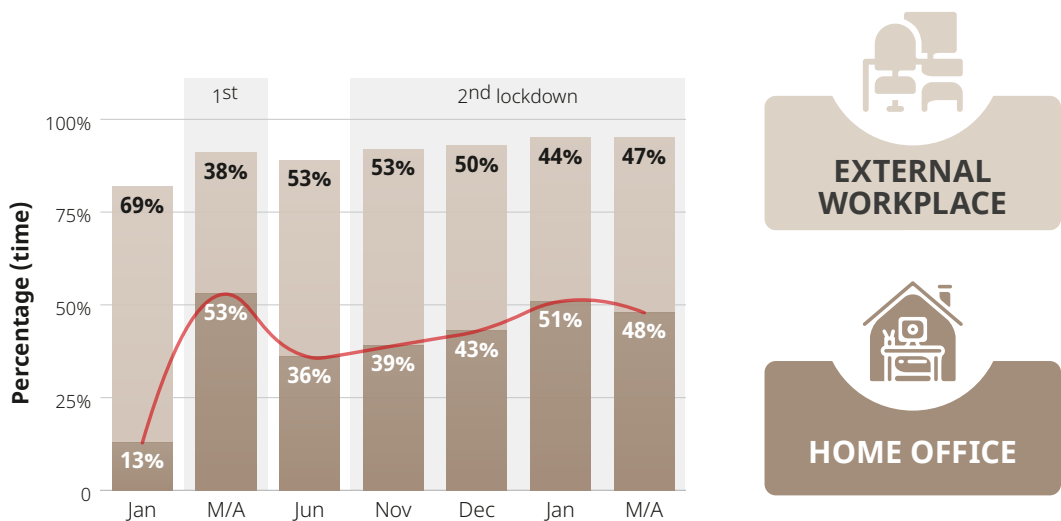
The percentage of people in our sample that were employed declined by 6% in the first lockdown. Although remaining relatively stable in the second lockdown, the proportion of employed participants was still 2-5% lower during the second lockdown than before the pandemic.

### EMPLOYMENT SITUATION

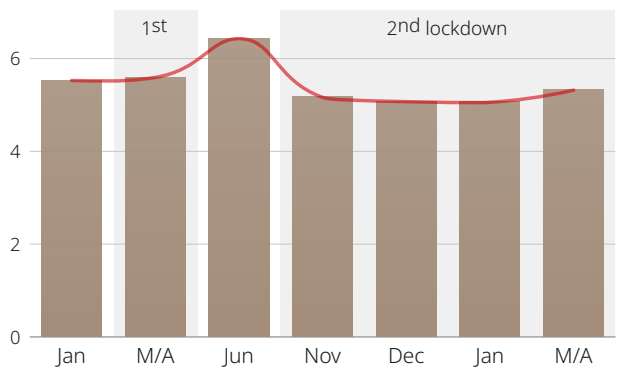


## TIME SPENT IN HOME OFFICE OR AT EXTERNAL WORKPLACE

The amount of *time* the participants spent *working from home increased by 40%* during the first lockdown. During the re-opening in June 2020, the amount of time spent working from home declined by 17%. However, the amount of time spent working from home increased again in the second lockdown, going up by 15% at its peak.



## TIME SPENT OUTDOORS DURING TIME OFF



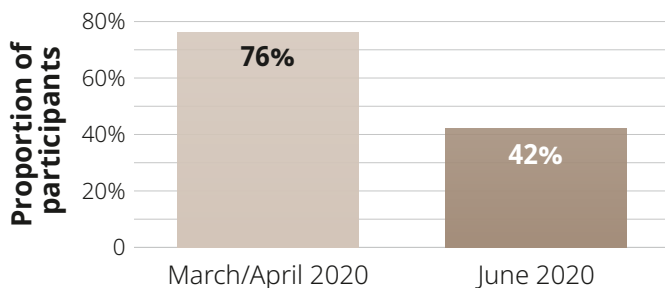
The amount of time that people spent outdoors during their spare time did not decrease during the first lockdown, but increased in June 2020 after the re-opening. It was lower again during the second lockdown.

## 3.3 COVID-RELATED BEHAVIOUR

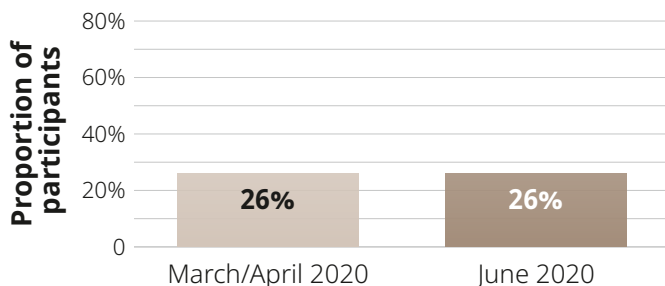
### COMPARISON: 1<sup>ST</sup> LOCKDOWN VS. RE-OPENING

During the first lockdown, 76% of all participants indicated only going out for groceries or for a stroll, whereas in June 2020 only 42% indicated the same. While the number of participants who left their house to attend their system-relevant job did not change during and after the lockdown (26%), more people left the house to go to work after the re-opening in June 2020 (41%) compared to lockdown in March/April 2020 (24%).

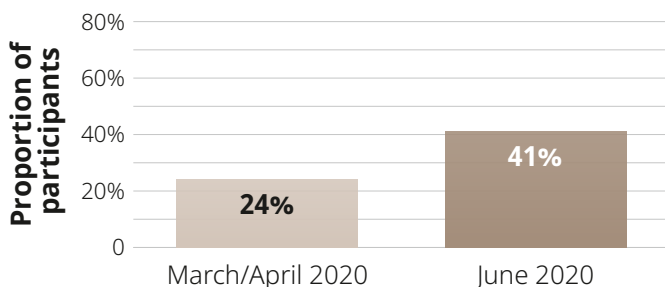
"I ONLY LEFT THE HOUSE TO **BUY GROCERIES OR GO FOR A STROLL.**"



"I ONLY LEFT THE HOUSE TO ATTEND MY **SYSTEM-RELEVANT JOB.**"

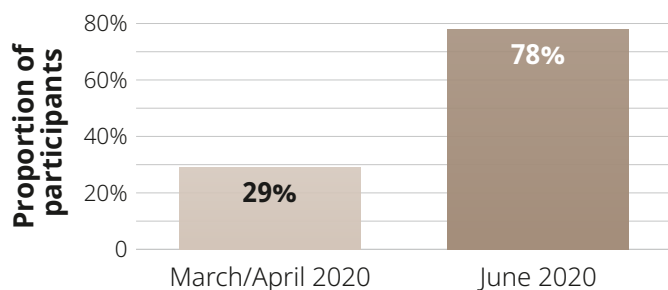


"I ONLY LEFT THE HOUSE TO GO TO **WORK.**"

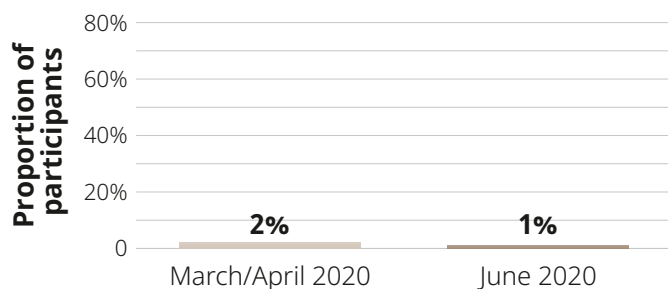


In March and April 2020, 29% of participants reported leaving the house only for social activities, which increased to 78% during the re-opening. Only 2% of all participants were in quarantine during the first lockdown, while only 4% indicated not isolating at all during the first lockdown.

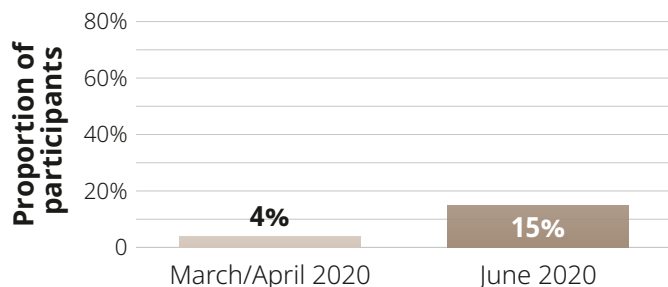
**"I ONLY LEFT THE HOUSE FOR A FEW SOCIAL ACTIVITIES  
(I.E. MEETING FRIENDS, FAMILY VISITS)."**



**"I WAS IN QUARANTINE AND DID NOT LEAVE THE HOUSE AT ALL."**



**"I DID NOT ISOLATE MYSELF AT ALL."**





# 4

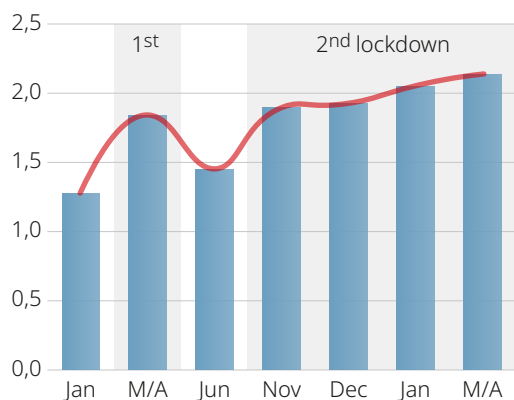
## VULNERABILITY

4.1	<b>Mental health</b>	56
4.2	<b>Fears</b>	60
4.3	<b>Health complaints</b>	66
4.4	<b>Conflicts &amp; limitations</b>	68

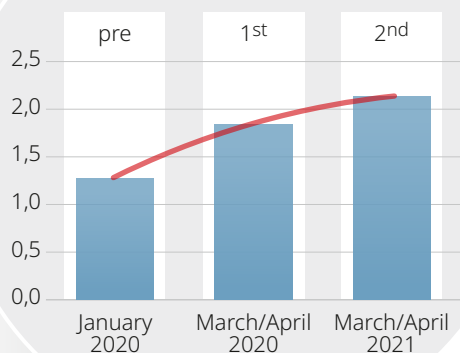
## 4.1 MENTAL HEALTH:

### Depressiveness, Anxiety, Loneliness & Stress

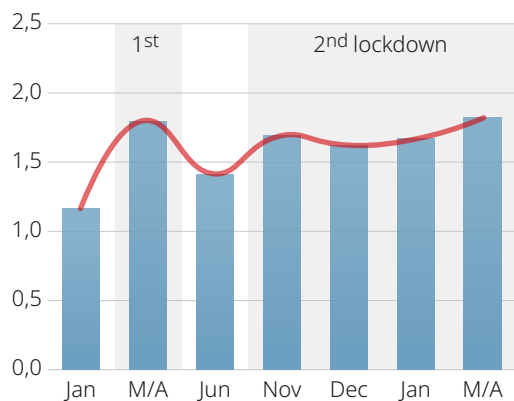
#### DEPRESSIVENESS



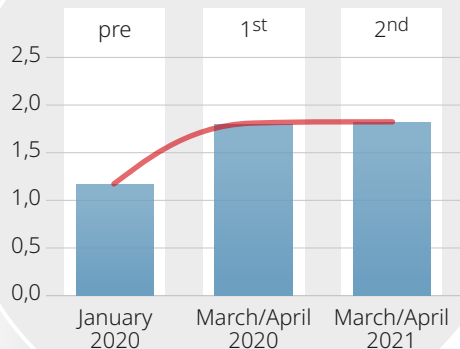
#### COMPARISON



#### ANXIETY



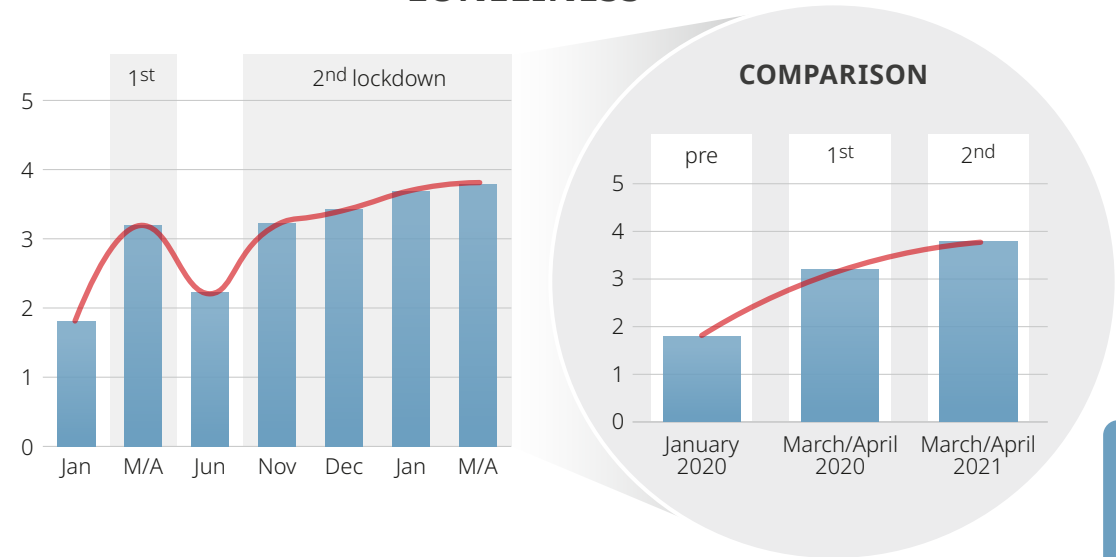
#### COMPARISON



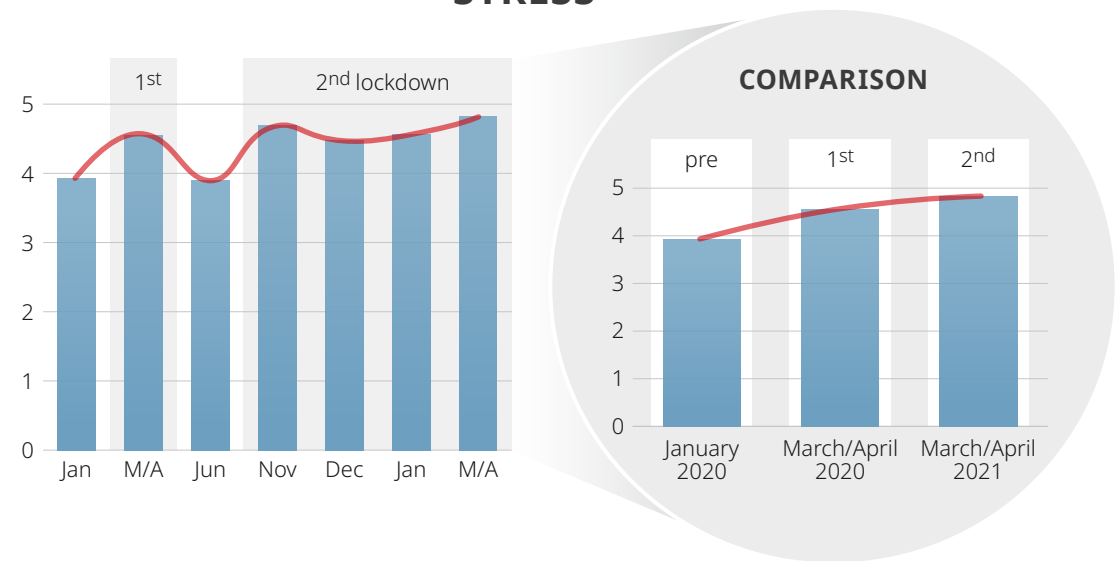


The mental health indicators of depressiveness, anxiety, loneliness and stress **increased** during the first lockdown (March-April 2020). They all declined again during the re-opening period in summer (June 2020). However, they **increased again** at the beginning of the second lockdown, with a tendency to increase further with every month of lockdown until March/April 2021, except for anxiety, which increased again in the second lockdown but no more than in the first one.

LONELINESS



STRESS



While both men and women reported similar levels of depressiveness and loneliness prior to the first lockdown (January 2020) and after re-opening (June 2020), **women\*** reported feeling **more depressiveness and loneliness than men** during both lockdowns compared to pre-lockdown. Additionally, **women** on average reported **more anxiety and stress** compared to men at **all timepoints** (including pre-lockdown).

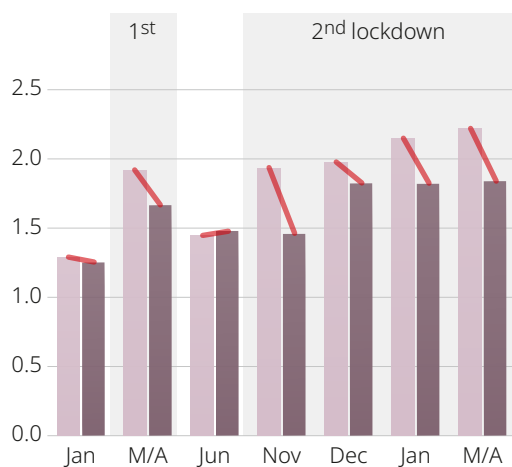


WOMEN

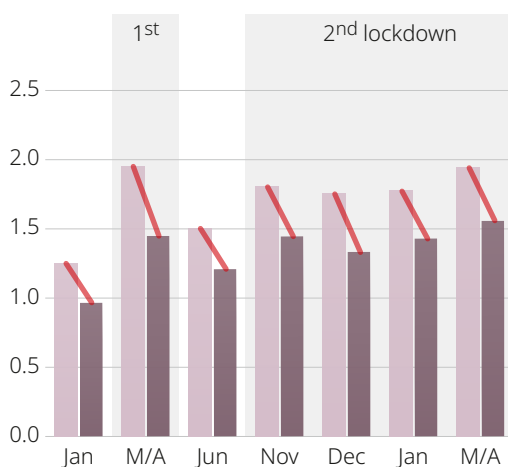


MEN

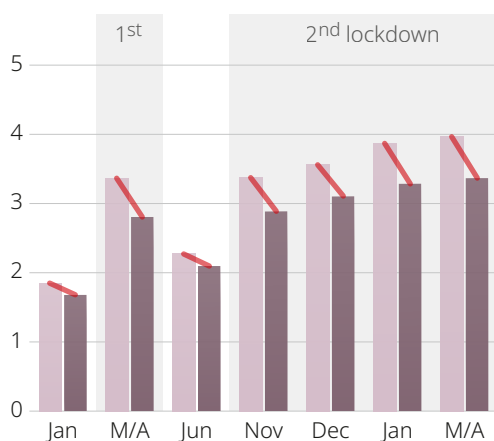
## DEPRESSIVENESS



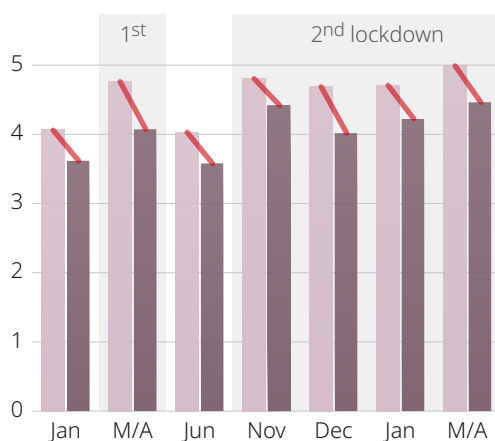
## ANXIETY



## LONELINESS

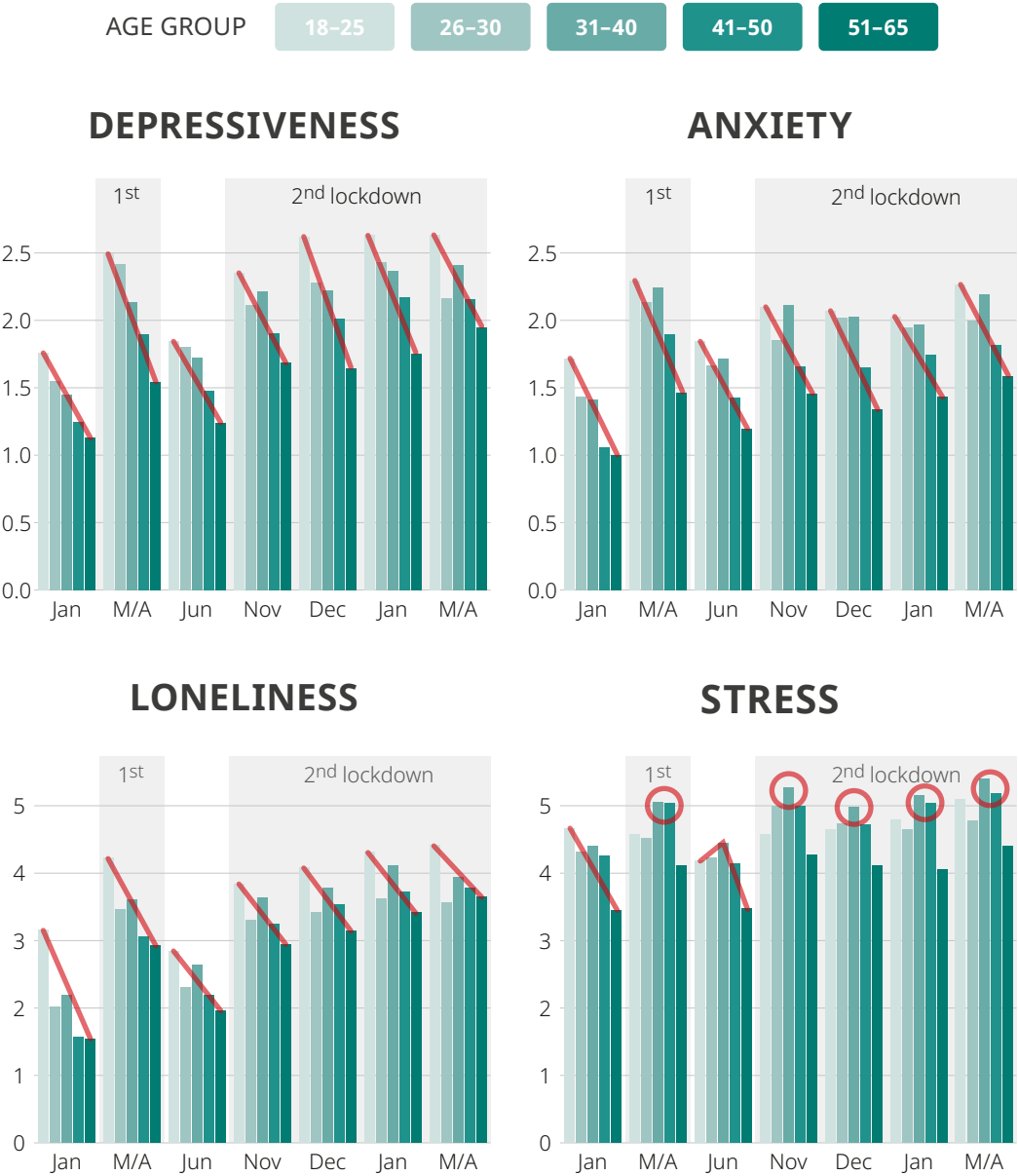


## STRESS



\* For stratification, we use gender assigned at birth.

**Younger individuals** on average reported **higher levels of depressiveness, anxiety and loneliness** compared to the oldest age groups at all timepoints (including pre-lockdown in January 2020 and at the re-opening in June 2020). However, although younger individuals reported more stress before the lockdown, higher levels of stress were reported during both lockdowns by individuals in the 31-50 age groups compared to younger individuals.

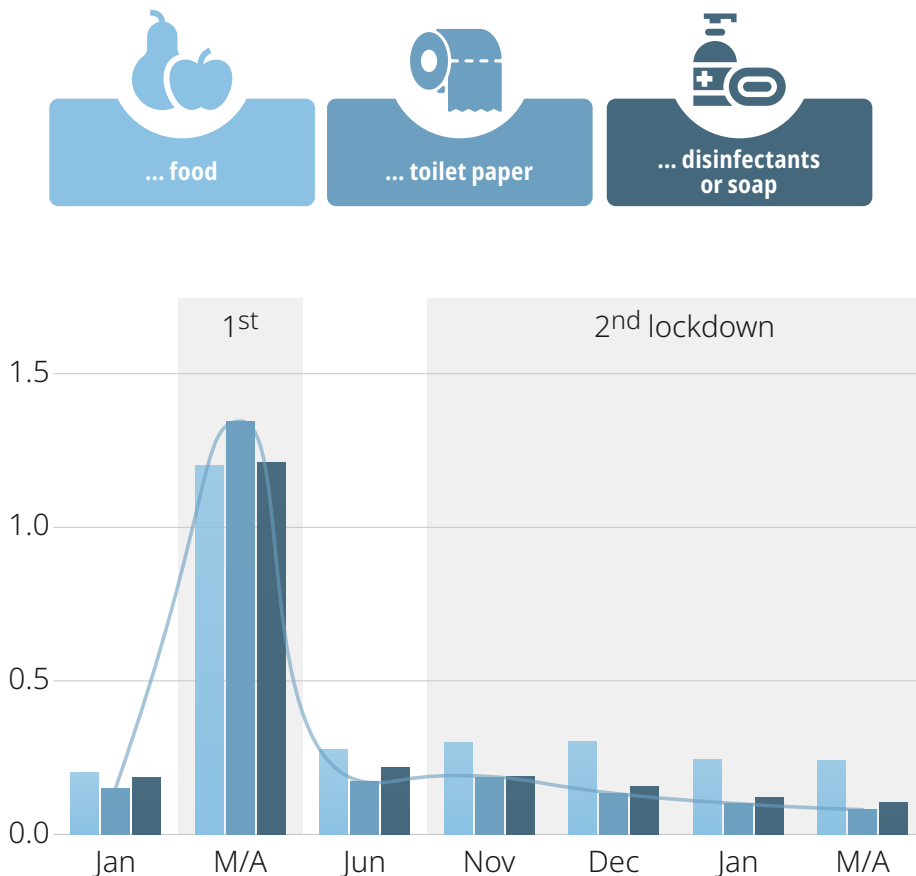


## 4.2 FEARS

### FEARS CONCERNING BASIC NEEDS

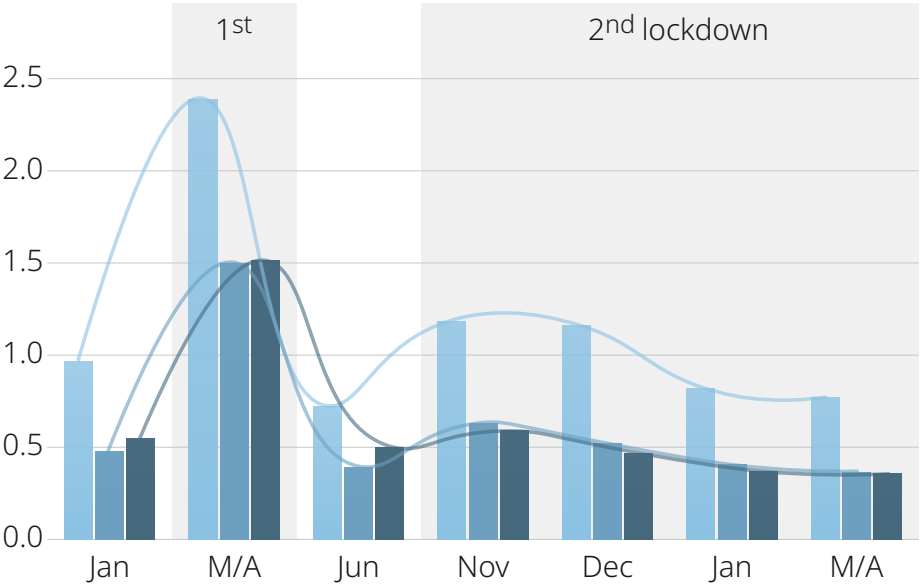
People were more afraid of running out of food, toilet paper and disinfectants during the first lockdown. These fears were no longer reported during the second lockdown.

**FEAR:**  
TO RUN OUT OF ...



People also stocked up on these items more during the first lockdown. Stocking up on food persisted in the second lockdown, though to a much lesser degree.

**BEHAVIOR:**  
STOCKING UP ON ...



## ECONOMIC FEARS

Fears of losing one's job and not having enough money **increased** during the first lockdown, along with the fear of a threat to life. These fears were not as marked during the second lockdown. However, the fear of a threat to life was reported more strongly during both lockdowns compared to pre-lockdown than the fears of losing one's job and not having money.



... to lose the job

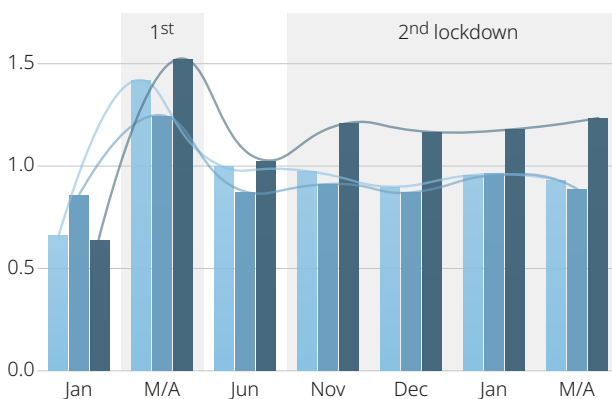


... to not have money



... that the existence is threatened

### FEAR ...

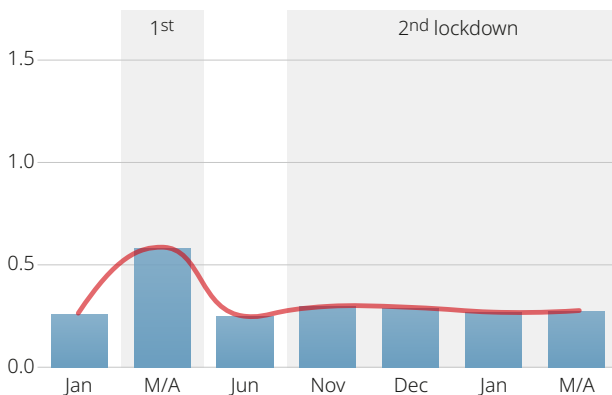


People also engaged in more fear-related behaviour, for example indicating that they withdrew more cash from their bank accounts during the **first** lockdown. This behaviour decreased during the re-opening (June 2020) and did not increase again during the second lockdown.



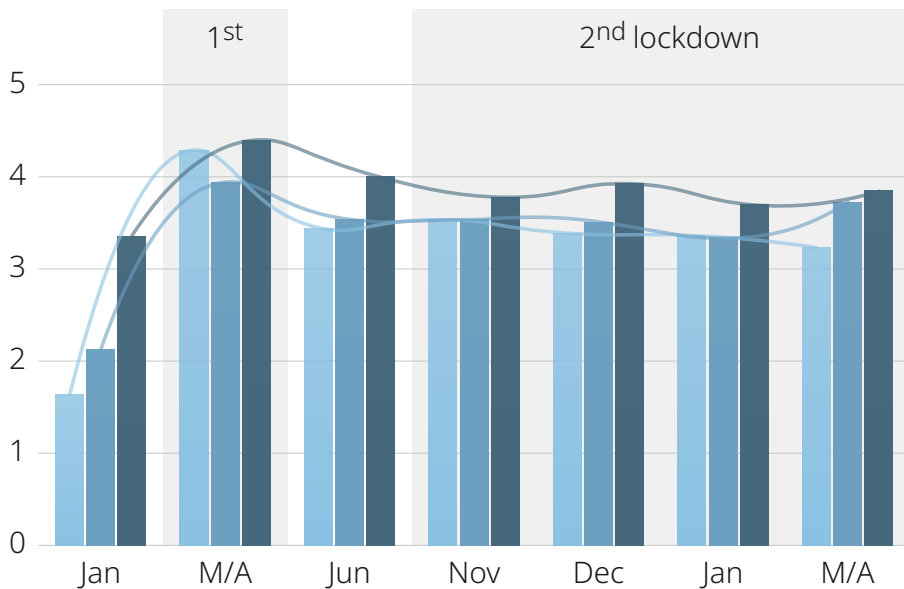
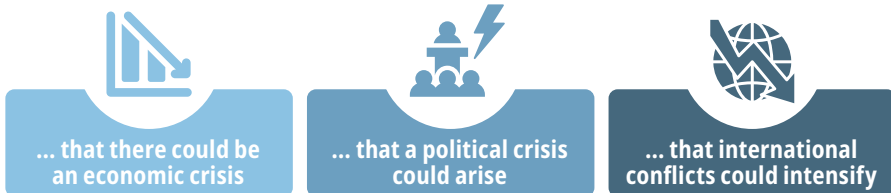
Withdraw cash from bank account

### BEHAVIOR:



During the first lockdown, the fear of a potential economic or political crisis went up noticeably. The fear that international conflicts may intensify was already higher in January 2020 compared to other fears; however, there was also an increase during the first lockdown. All three of these fears decreased slightly during the re-opening and then remained stable throughout the second lockdown.

### FEAR ...



## HEALTH RELATED FEARS

People were more afraid of getting infected by diseases and more afraid of the health system becoming overloaded during both lockdowns compared to pre-lockdown (January 2020) and compared to the re-opening period (June 2020). These fears were reported more strongly by women compared to men during both of the lockdowns.

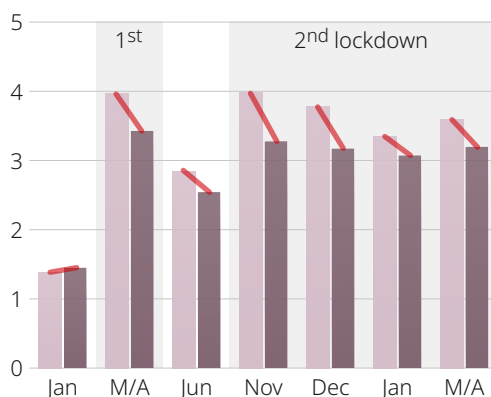
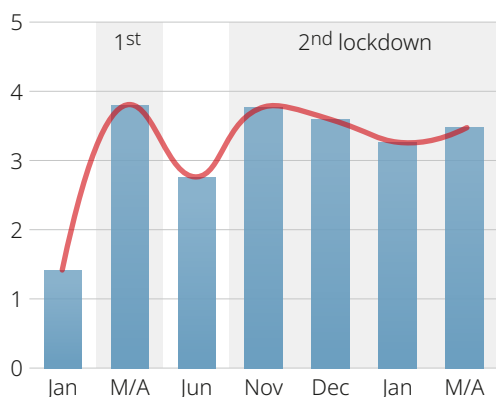


WOMEN

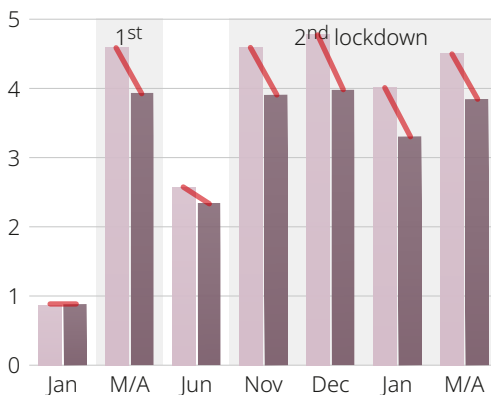
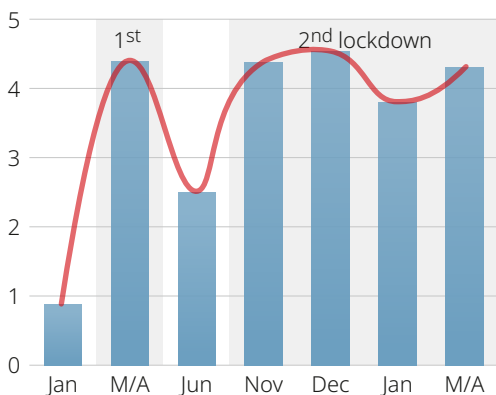


MEN

### FEAR TO GET INFECTED WITH DISEASES OR VIRUSES



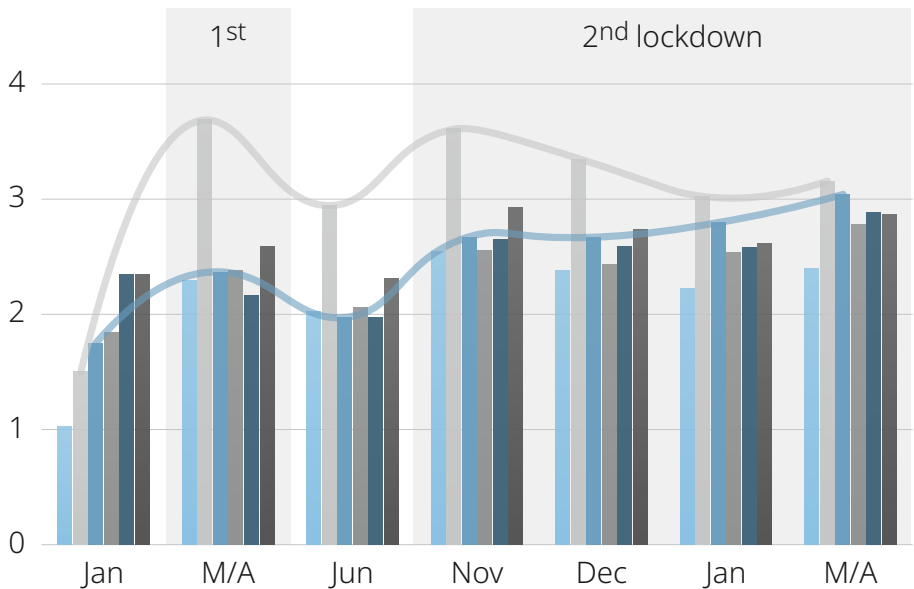
### FEAR THAT THE HEALTH SYSTEM WILL BE OVERLOADED





During both lockdowns, participants reported feeling *worried* by the prospect of *friends and family becoming infected* more than they worried about it for themselves. However, in the second lockdown people felt *increasingly burdened by their own mental health problems* themselves.

FEELING BURDENED WITH ...

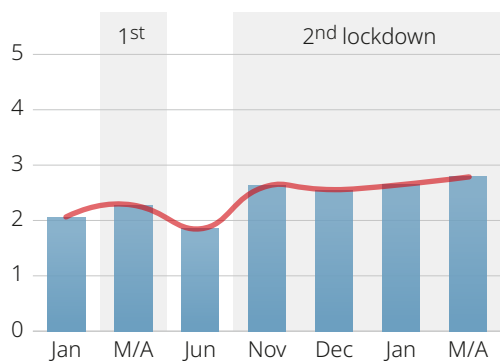


Disclaimer: In the present publication, we only present burdens fitting to the categories of health-related, COVID-19 related limitations, and conflicts. The information on other burdens can be accessed at: [osf.io/jvb98](https://osf.io/jvb98)

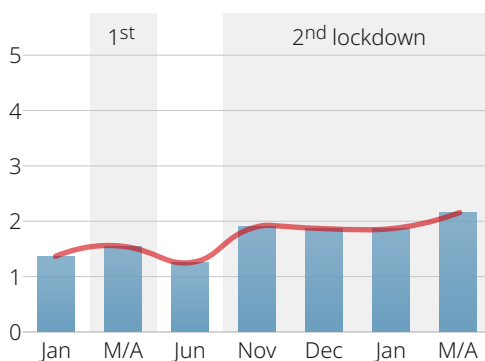
## 4.3 HEALTH COMPLAINTS



### BACKPAIN



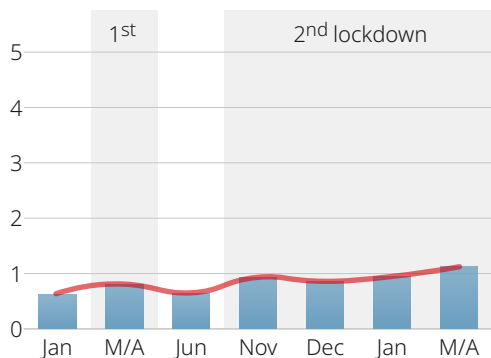
### HEADACHES / MIGRAINE



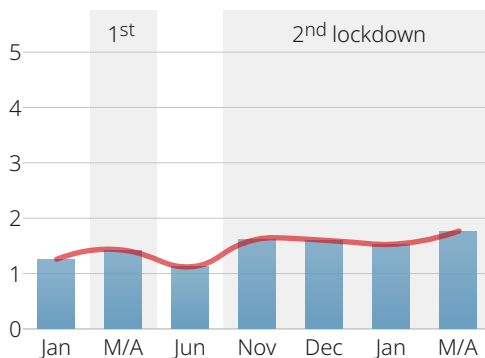
Health complaints that can be related to psychosomatic disorders, such as back pain, headaches, cardiovascular and gastrointestinal problems, exhaustion and sleep problems **increased** during both lockdowns, especially during the second lockdown.



### CARDIOVASCULAR PROBLEMS

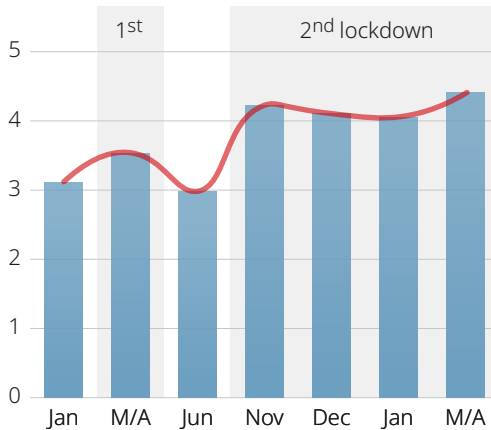


### GASTROINTESTINAL PROBLEMS

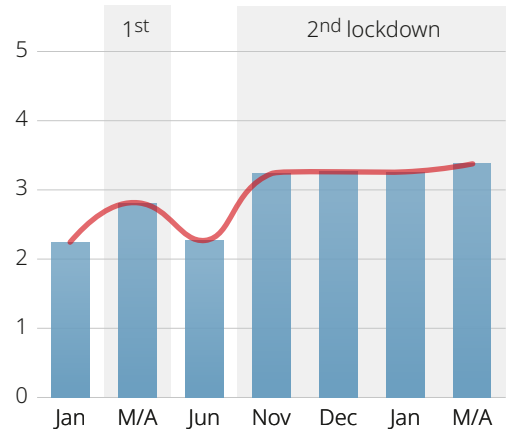




## EXHAUSTION / TIREDNESS



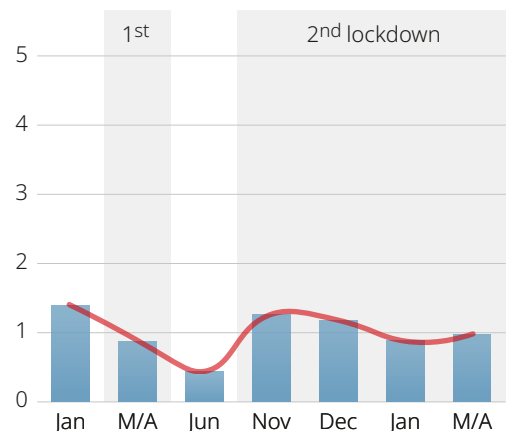
## SLEEP DISORDERS



On the other hand, participants reported a decrease in common cold symptoms during the first lockdown compared to pre-lockdown which decreased even further during the re-opening period. Participants also reported an increase in common cold symptoms during the first few months of the second lockdown (November and December 2020) compared to the re-opening period in June 2020. However, common cold symptoms in January 2021 were lower than in January 2020.



## COLD SYMPTOMS

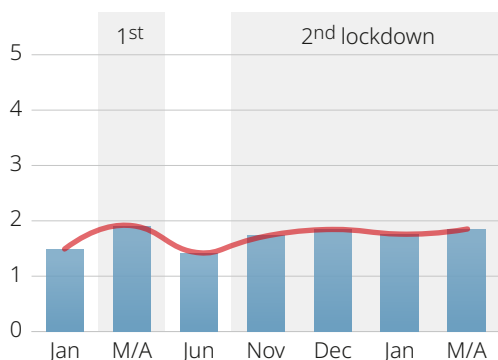


## 4.4 CONFLICTS & LIMITATIONS

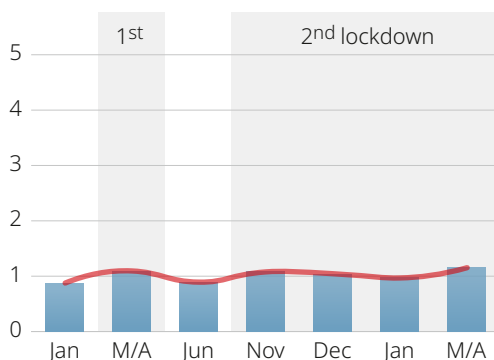
During both lockdowns, participants reported feeling more burdened by conflicts with friends, conflicts at home, and especially due to limitations on social interactions. While everyone reported similar levels of these burdens and worries pre-lockdown, women reported feeling more worried than men during both lockdowns and even during the re-opening.

### FEELING BURDENED WITH ...

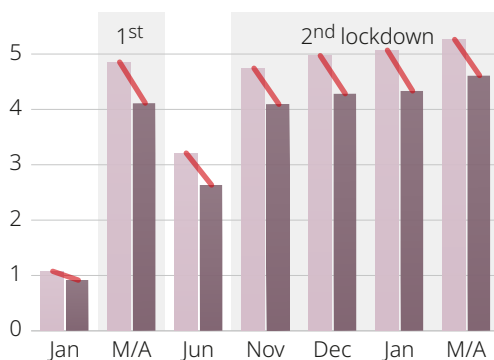
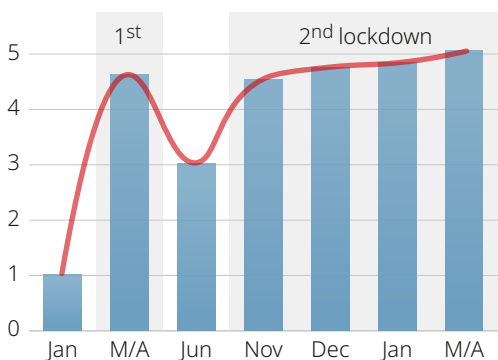
... CONFLICTS AT HOME  
OR FAMILY CONFLICTS



... CONFLICTS WITH FRIENDS  
OR ACQUAINTANCES



### ... LIMITATIONS OF SOCIAL INTERACTIONS



WOMEN

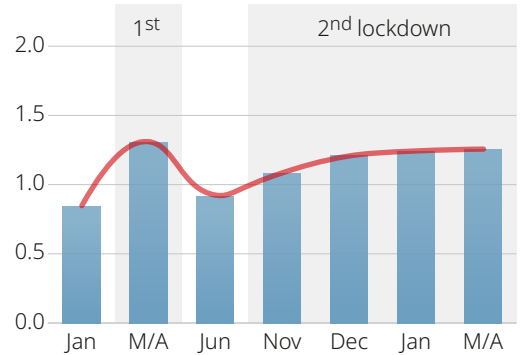


MEN



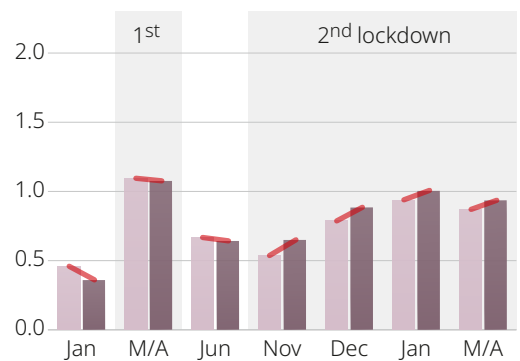
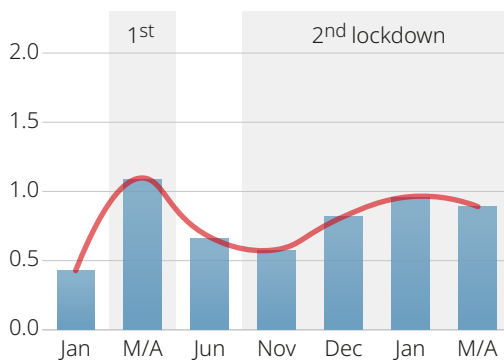
Participants also reported feeling an **increased burden** from problems with childcare and housing conditions during both lockdowns.

### ... HOUSING CONDITIONS (E.G. TIGHT LIVING SPACE)



Interestingly, before the pandemic women reported feeling more burdened than men by problems with childcare, while during the first lockdown and the re-opening phase men and women felt equally burdened. During the second lockdown the pattern shifted, and men seemed to feel more burdened by childcare than women.

### ... PROBLEMS CONCERNING CHILDCARE



WOMEN

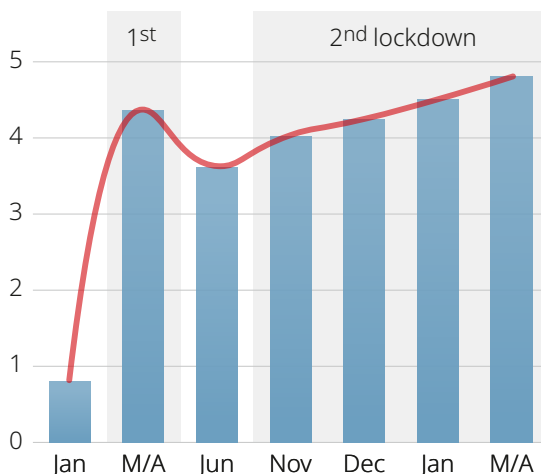


MEN

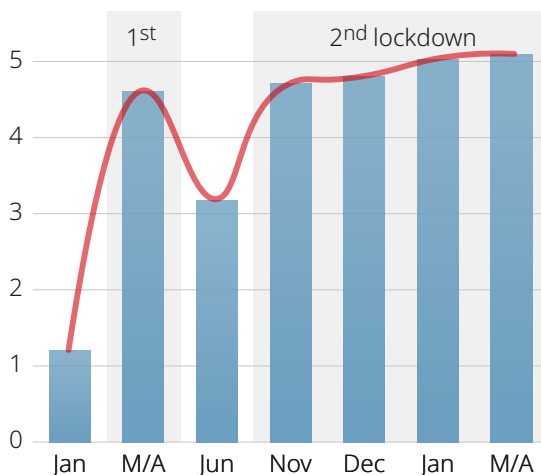
During the first lockdown, participants reported feeling **more burdened due to limitations on travel, leisure opportunities, and negative political events and media coverage**. These burdens decreased slightly during the re-opening period but then **increased again in the second lockdown**, with a tendency towards increasing as each month went by.

## FEELING BURDENED WITH ...

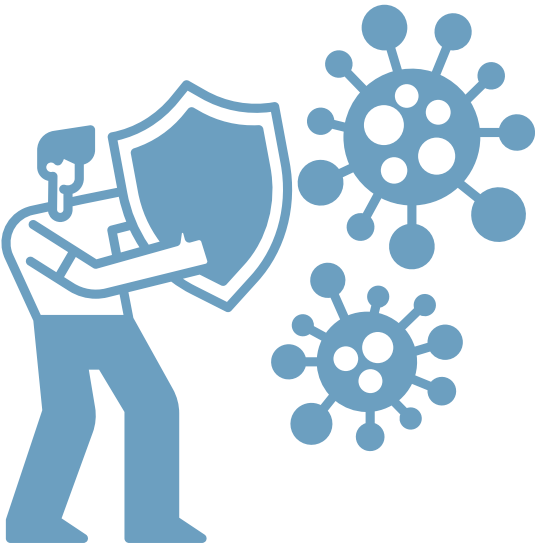
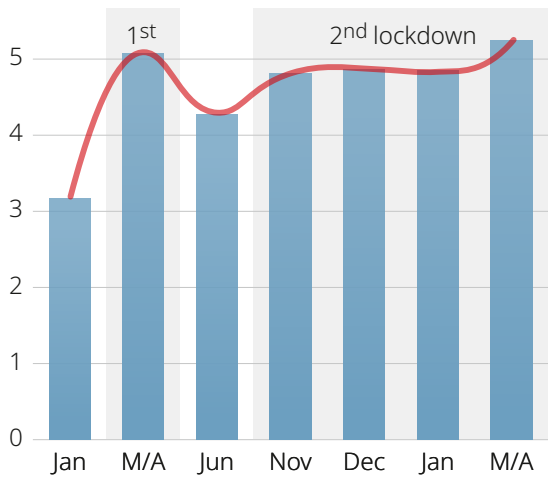
### ... LIMITATIONS OF TRAVEL OPTIONS



### ... LIMITATIONS OF LEISURE OPPORTUNITIES



... NEGATIVE POLITICAL EVENTS AND MEDIA COVERAGE







# 5

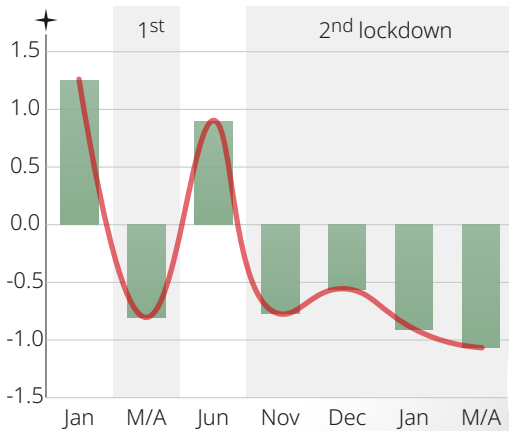
## RESILIENCE

5.1	Emotional well-being	74
5.2	Optimism & life satisfaction	76
5.3	Coping strategies	78
5.4	Recovery from stressful events	83

## 5.1 EMOTIONAL WELL-BEING

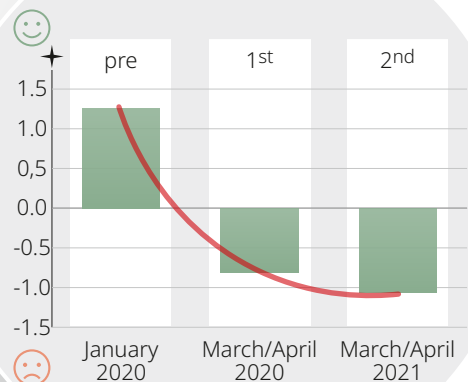


### PLEASANT FEELINGS



### UNPLEASANT FEELINGS

### COMPARISON



Overall, the participants' emotional state changed over the course of the pandemic. While participants reported more pleasant feelings at pre-lockdown and during the re-opening, they reported more negative and unpleasant feelings during both lockdowns. Interestingly, negative feelings increased further during the second lockdown up until March/April 2021 compared to the first lockdown.

## AGE GROUP

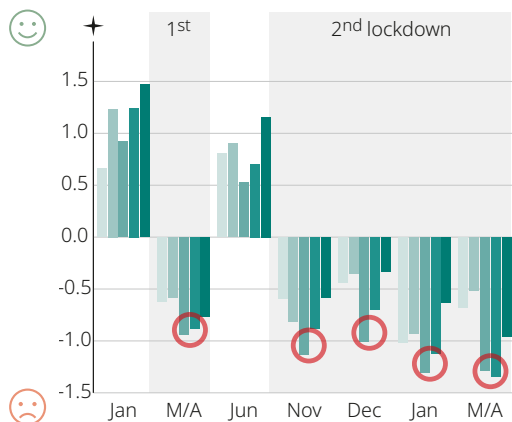
18-25

26-30

31-40

41-50

51-65



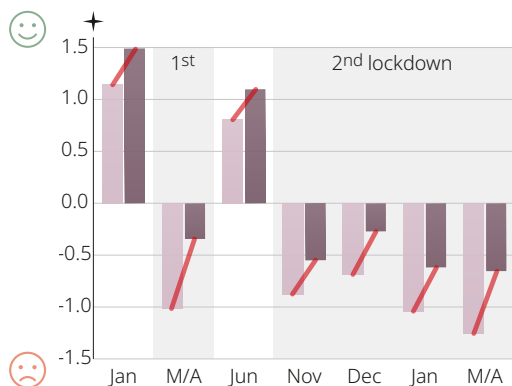
In general, **people aged 31-50** reported more negative feelings throughout the entire pandemic. People in the youngest age group felt less positive pre-lockdown and during the re-opening phase than people in the oldest age group. However, during the first lockdown and at the beginning of the second lockdown both the young and the old reported negative feelings to an equal extent.



WOMEN



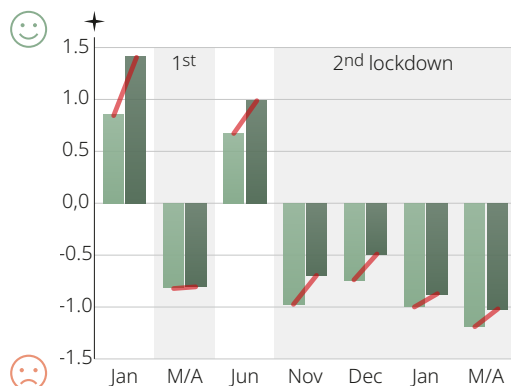
MEN



... LIVING ALONE



... LIVING WITH OTHERS

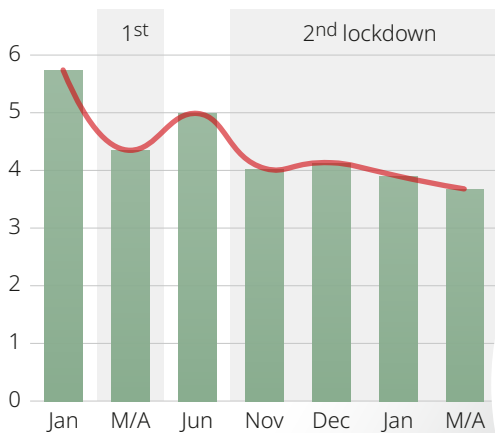


**Women and people who live alone** reported feeling more negative on average across all timepoints than men and people who lived with others. However, living alone or living with others did not seem to make a difference to emotional well-being during the first lockdown.

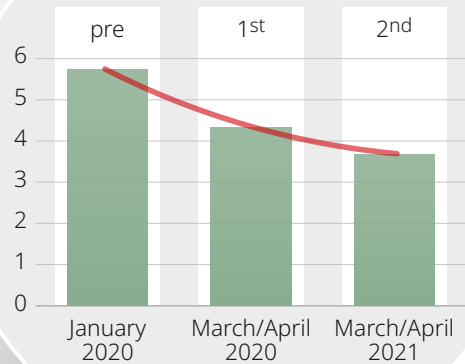
## 5.2 OPTIMISM & LIFE SATISFACTION

Participants reported decreased optimism and life satisfaction during the first lockdown compared to pre-lockdown. Both optimism and life satisfaction increased again during the re-opening.

### OPTIMISM



### COMPARISON



Optimism gradually declined again during the second lockdown, such that even lower levels of optimism were observed in March-April 2021 than during the first lockdown at the same point in the previous year. Life satisfaction also declined again towards the end of the second lockdown.

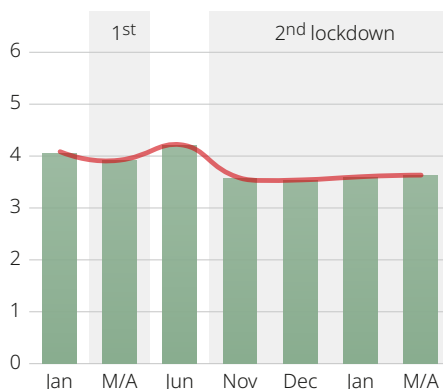
LIFE SATISFACTION



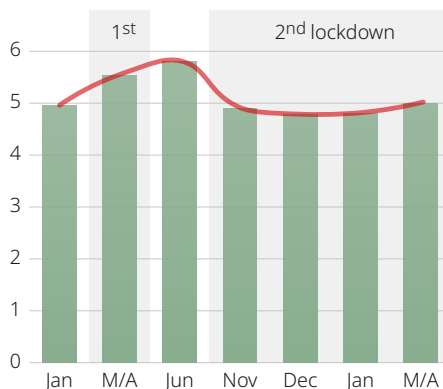
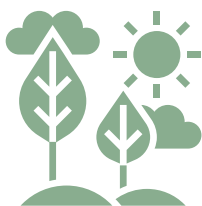
## 5.3 COPING STRATEGIES

### HOW MUCH HAVE THE FOLLOWING THINGS HELPED YOU TO OVERCOME CRISES AND PROBLEMS?

#### PHYSICAL EXERCISE



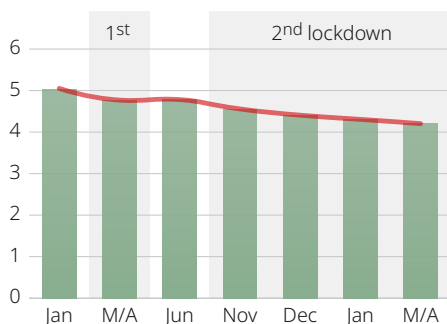
#### NATURE



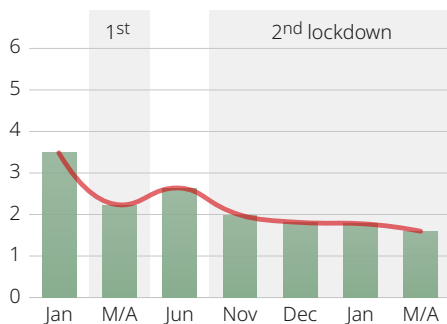
Participants reported spending more time in nature as a coping strategy during the first lockdown compared to pre-lockdown, and time spent in nature increased further during the re-opening in June 2020 along with the use of physical exercise as a coping strategy. Furthermore, participants reported seemingly less use of physical exercise and spending time in nature as a coping strategy for stressful situations during the second lockdown.

Participants reported a relatively stable use of music as a coping strategy during the first lockdown compared to pre-lockdown. However, the use of music as a coping strategy seemingly declined during the second lockdown, with a tendency to decrease with each passing month. Participants reported decreased engagement in cultural offerings as a coping strategy during both lockdowns compared to pre-lockdown and during the re-opening. The use of spirituality as a coping strategy remained relatively stable across all timepoints.

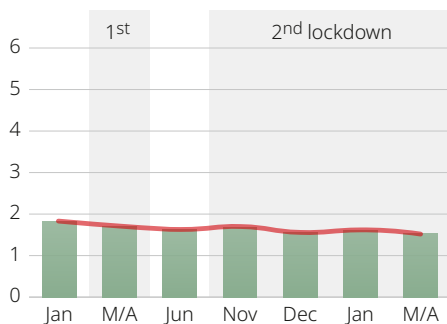
### MUSIC



### CULTURAL OFFERINGS

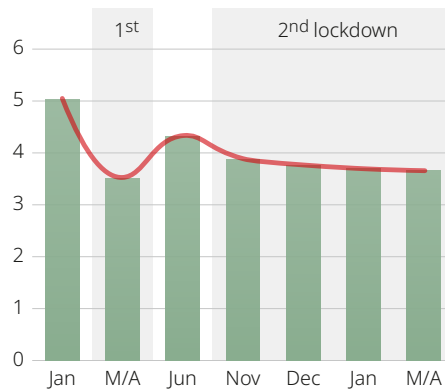


### SPIRITUALITY

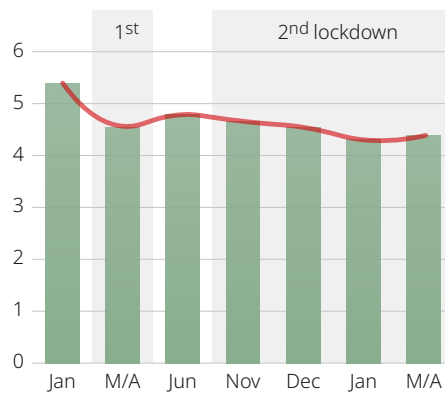


To cope with difficult situations, participants reported decreased use of the behavioral activation strategy (i.e., trying to change the situation) during both lockdowns, compared to pre-lockdown and re-opening. Participants seemed to plan ahead more often in pre-pandemic times.

### ACTIVELY CHANGING THE SITUATION



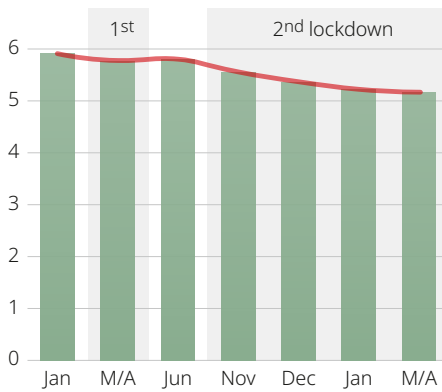
### MENTALLY PLANNING NEXT STEPS



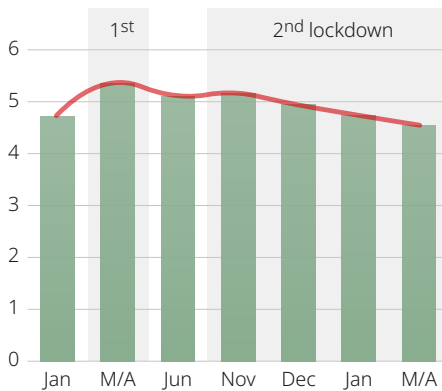


The use of humour as a coping strategy seemingly declined during the second lockdown. On the other hand, participants reported an increased use of the acceptance strategy (i.e., trying to accept the situation) during the first lockdown, which then witnessed a decline in use in the second lockdown.

### HUMOUR

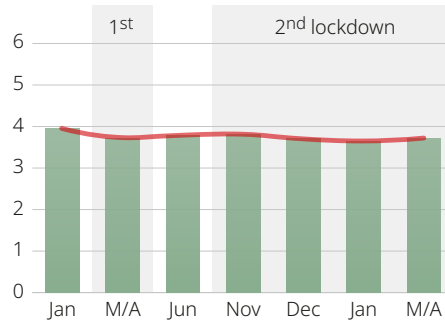


### TRYING TO ACCEPT THE SITUATION

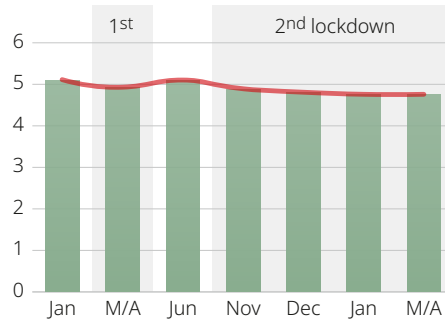


The lockdown did not seem to have any effect on the use of coping strategies, such as an open display of emotions, support from others or distractions, and their use remained relatively stable across all timepoints.

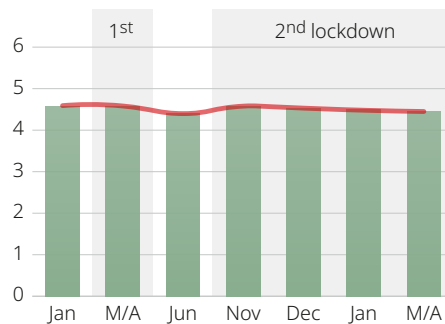
### OPEN DISPLAY OF NEGATIVE EMOTIONS



### SUPPORT FROM OTHERS



### DISTRACTION

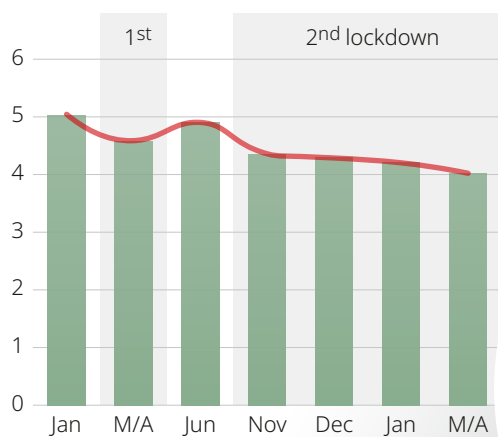


## 5.4 RECOVERY FROM STRESSFUL EVENTS

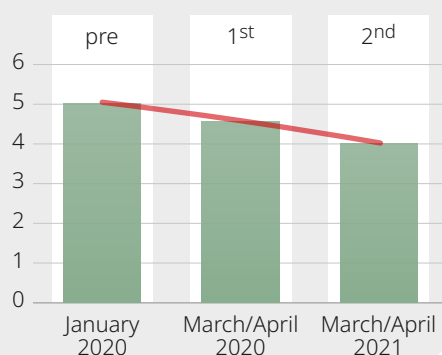
Participants reported a **decreased** ability to recover from stressful events during the **first lockdown** compared to pre-lockdown. **Resistance bounced back** during the **re-opening** period. However, during the **second lockdown** participants reported even further **decreasing levels of resistance** at each timepoint.



### RECOVERY AFTER DEMANDING / STRESSFUL MOMENTS



#### COMPARISON





# 6

## SOCIAL COHESION

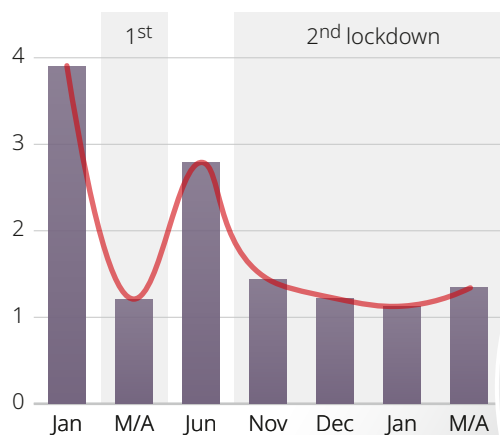
6.1	<b>Participation</b>	86
6.2	<b>Trust</b>	88
6.3	<b>Social interaction</b>	90
6.4	<b>Belonging</b>	96

## 6.1 PARTICIPATION

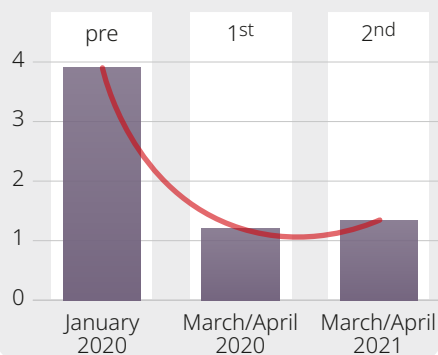
Participants reported a ***decrease in social and political participation*** during both of the lockdowns compared to pre-lockdown and the re-opening periods.



### SOCIAL PARTICIPATION

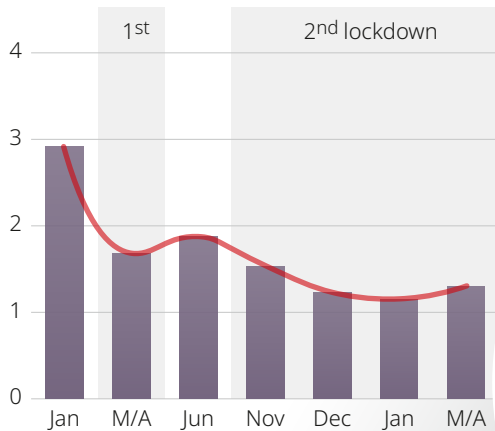


#### COMPARISON

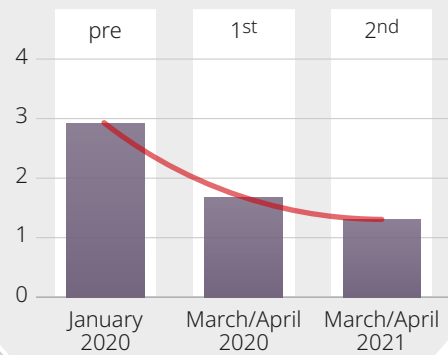


- e.g., being member of a community, political party, trading company, club or parish
- extent of involvement in this group, i.e. frequency of participation in meetings

## POLITICAL PARTICIPATION



### COMPARISON



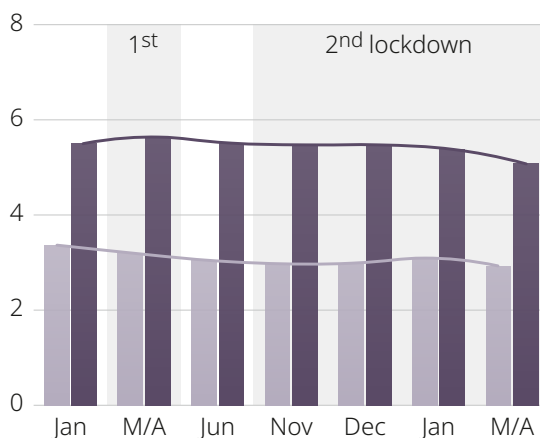
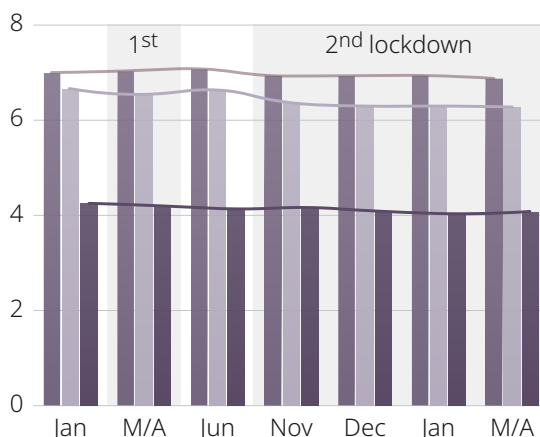
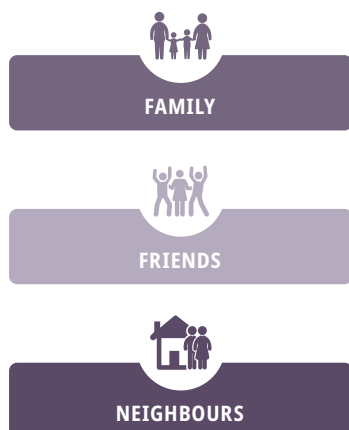
- ▶ e.g., regularity of public expression of one's opinion on current topics
- ▶ engagement in petitions, demonstrations, strikes, etc.
- ▶ voting behaviour, i.e. participation in political elections



## 6.2 TRUST

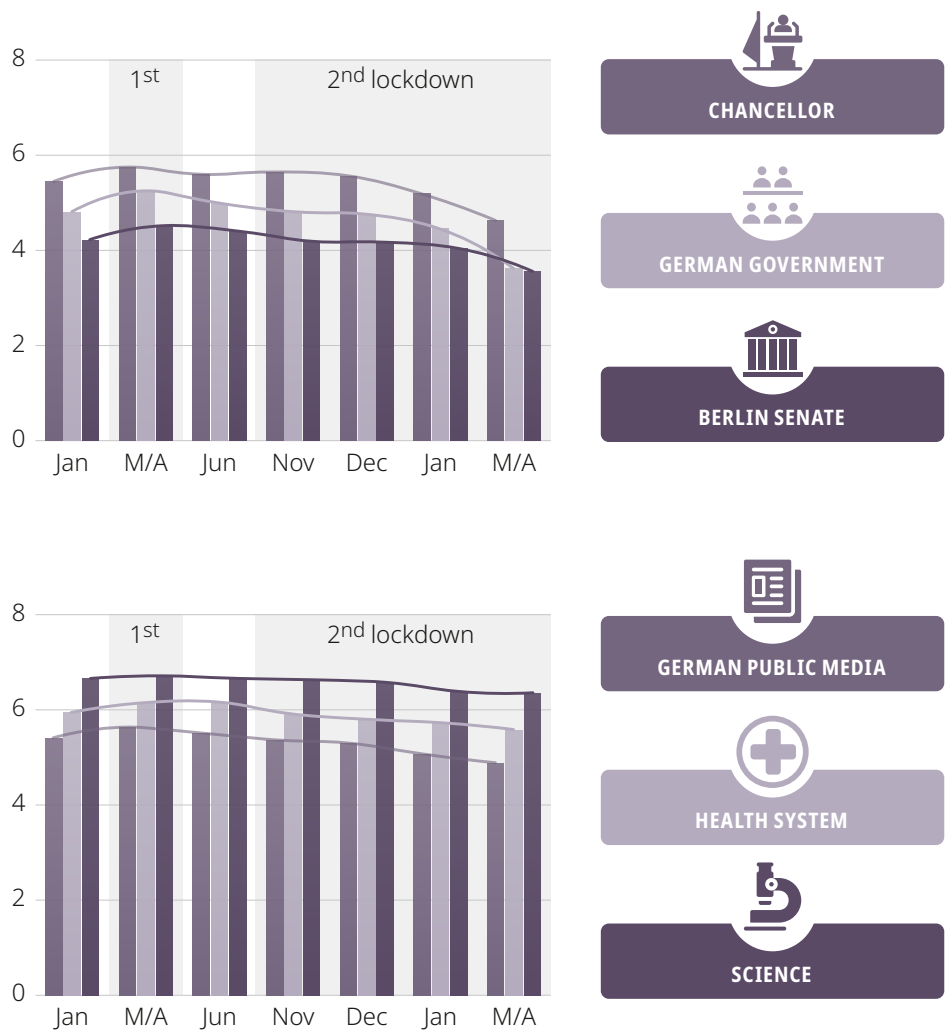
**Trust** in family, friends, neighbours, fellow citizens and the German police **remained relatively stable** throughout the entire pandemic. In general, family and friends were more trusted than neighbours. On average, people also reported having less trust towards their fellow citizens than towards the German police.

### HOW STRONGLY DID YOU TRUST THE FOLLOWING PEOPLE OR INSTITUTIONS?





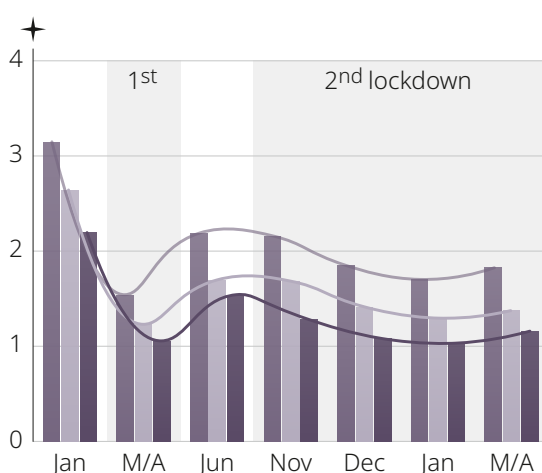
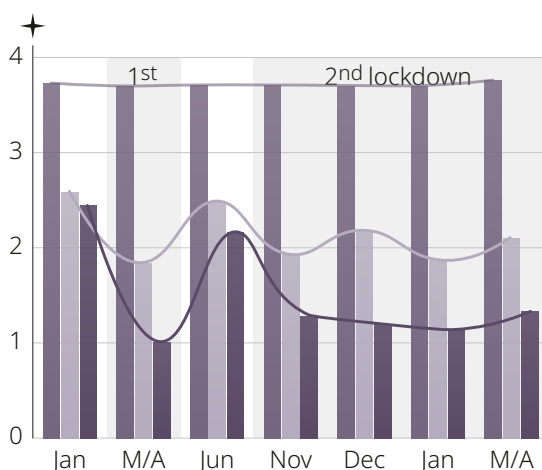
Trust in the Chancellor, the German government and the Senate of Berlin remained **stable** during the first lockdown. However, trust in the Chancellor, the German government and the Berlin Senat **declined** towards the **end of the second lockdown**. Trust in German public media, the healthcare system and in science remained relatively **stable** throughout the pandemic, with a slight decline towards the end of the second lockdown.



## 6.3 SOCIAL INTERACTION

In general, personal contact with family, friends, colleagues, superiors and others **decreased** during both lockdowns. In contrast, personal contact with **partners** remained **stable** during the course of the entire pandemic.

### HOW OFTEN DID YOU HAVE PERSONAL CONTACT WITH...

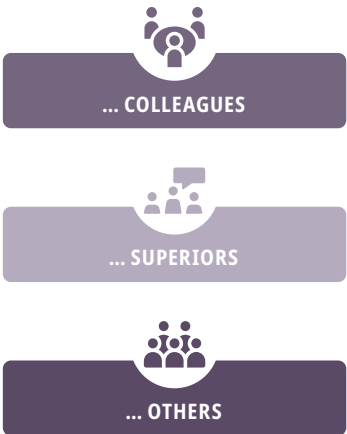
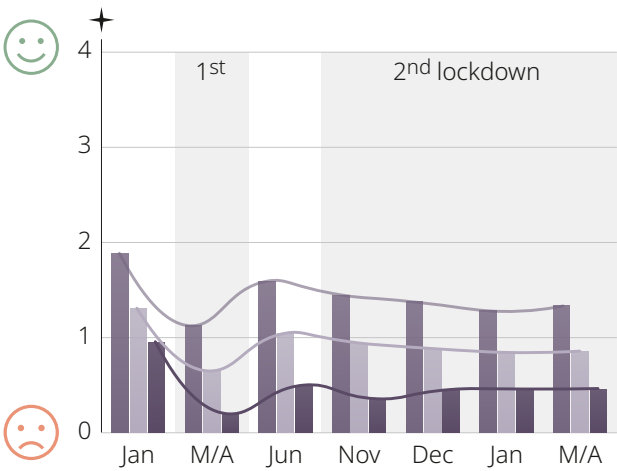
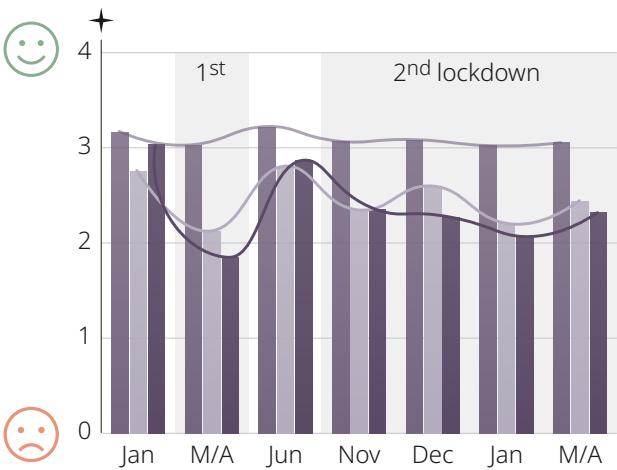


✦ Scale from 0 (never) to 4 (very often).



Overall, personal interactions with family, friends, colleagues, superiors and others were experienced as being **less pleasant** during both lockdowns. Again, personal interactions with partners remained relatively **consistently pleasant** across all timepoints.

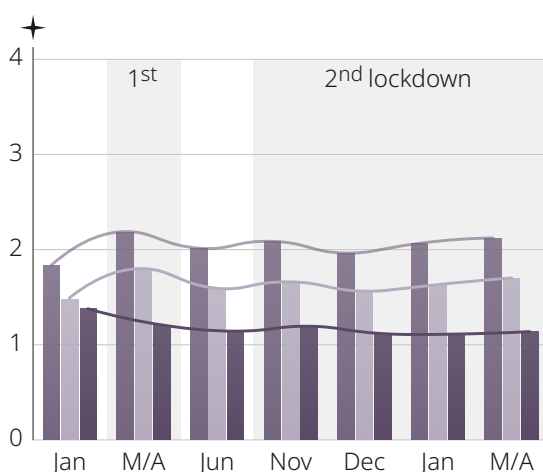
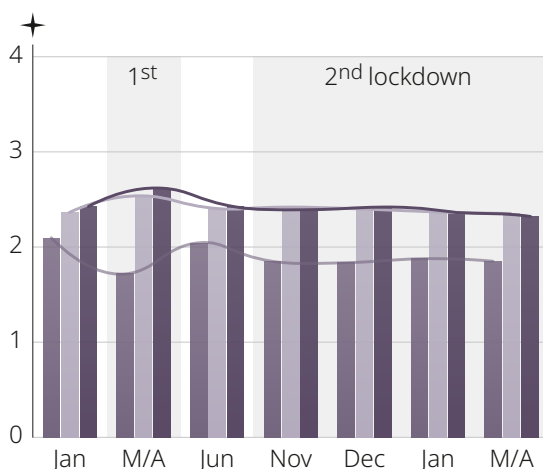
HOW PLEASANT WAS THE PERSONAL CONTACT WITH...



✦ Scale from -4 to +4.

The frequency of online contact with friends, colleagues and superiors **increased slightly** during the first lockdown and then remained relatively **stable** during the second lockdown. Online contact with family remained stable throughout the pandemic. Online contact with partners **decreased** during the first lockdown and then again during the second lockdown. Online contact with others **decreased** a little during the first lockdown and then remained relatively **stable** throughout the rest of the pandemic.

## HOW OFTEN DID YOU HAVE ONLINE CONTACT WITH...





Participants reported their online interactions with family, friends, colleagues and superiors to be ***consistently pleasant*** throughout the pandemic. Online interactions with partners and others were reported to be ***less pleasant*** during the first lockdown compared to pre-lockdown, but remained consistently pleasant across other timepoints.

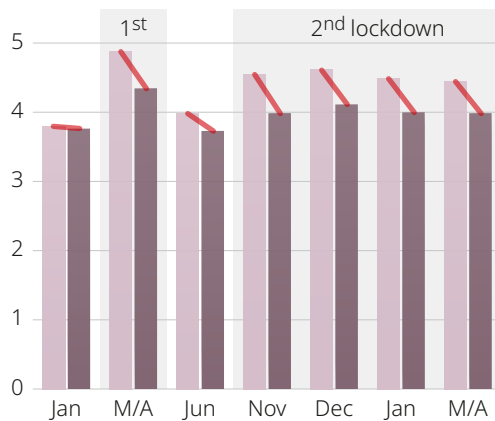
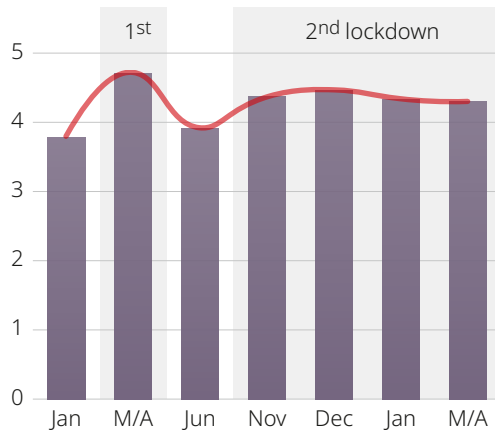
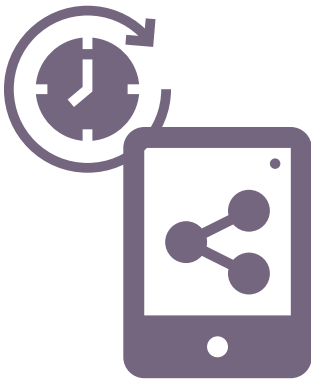
HOW PLEASANT WAS THE ONLINE CONTACT WITH...



✦ Scale from -4 to +4.

## TIME SPENT ONLINE TO NURTURE SOCIAL BONDS

During the two lockdowns, participants reported spending **more time** on the internet **nurturing social bonds**. At pre-lockdown time, everyone reported spending similar amounts of time socialising online, but during the lockdowns **women** reported spending **more time** than men on social internet use.



WOMEN

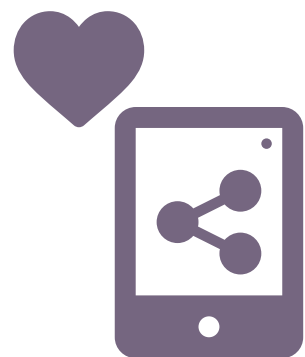
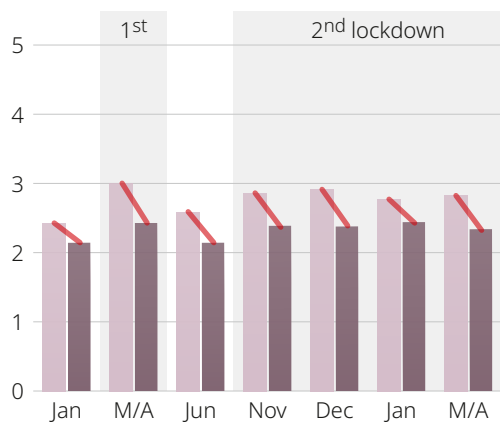
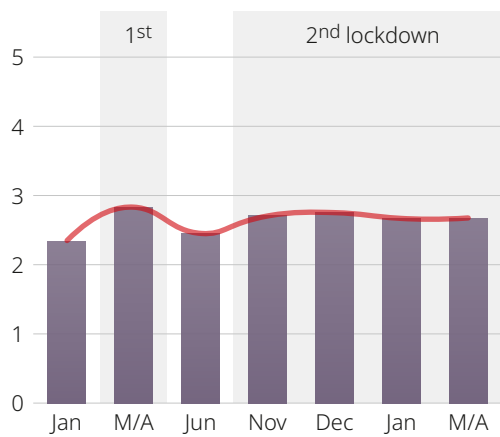


MEN

Disclaimer: In this publication we only present the desire for internet use items only in the domain of social interaction. Information on other desire for internet use items can be accessed at: [osf.io/jvb98](https://osf.io/jvb98)

# DESIRE FOR USE OF SOCIAL NETWORKS

The *desire* for use of social media and networks increased during the first lockdown and again slightly during the second lockdown. It was higher among women at every timepoint.

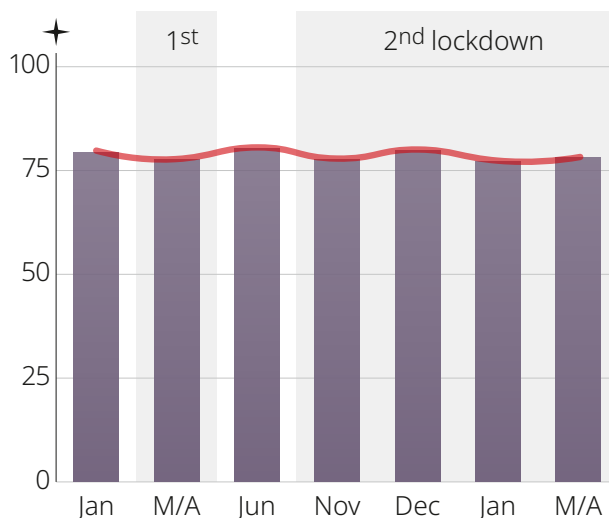


## 6.4 BELONGING

The sense of belonging towards family among the participants remained relatively stable throughout the pandemic. Participants reported a decline in their feeling of belonging towards friends during both of the lockdowns, along with a slight decline in belonging towards neighbours. In general, participants reported less belonging to their neighbours than towards friends and family.

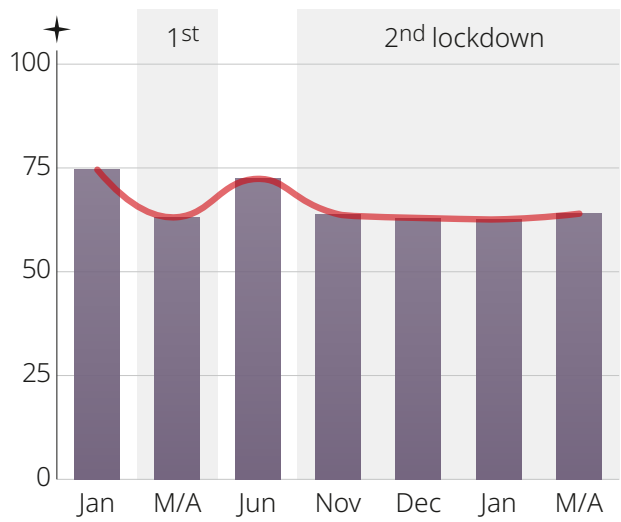


### FAMILY

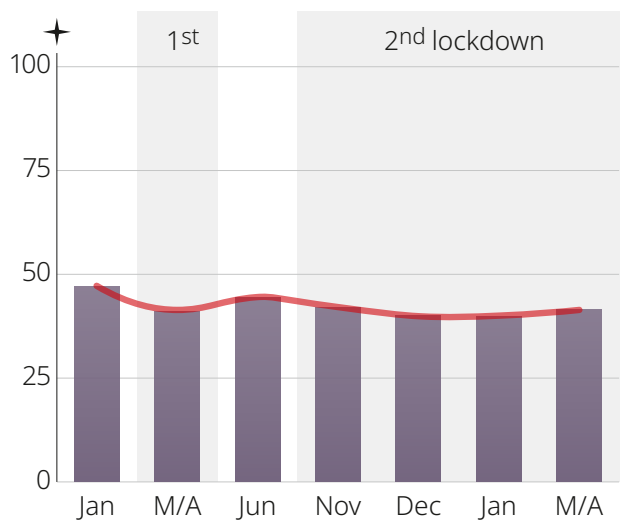




FRIENDS



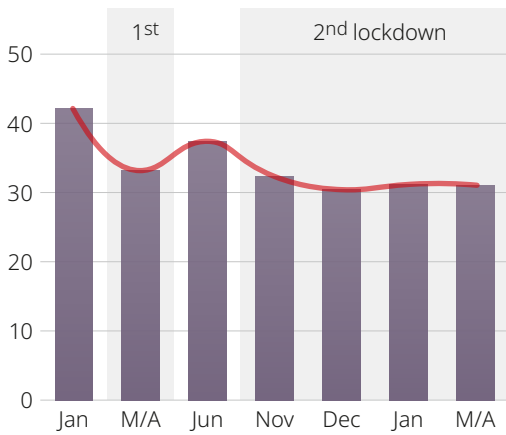
NEIGHBOURS



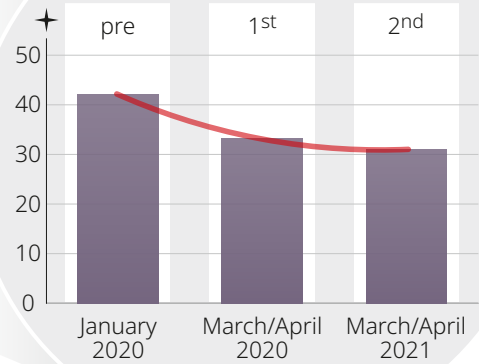
Participants reported a **decrease** in their feeling of belonging towards Berlin, Germany, Europe and the world at large during the first lockdown compared to pre-lockdown.



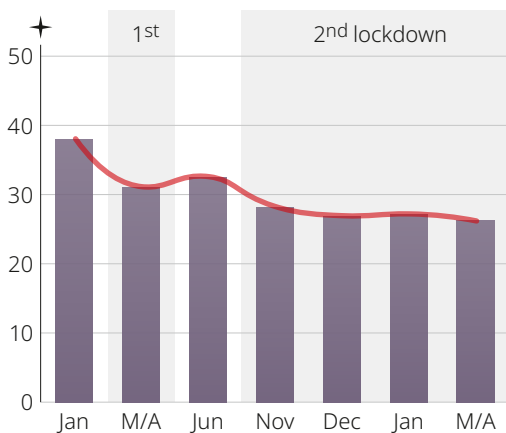
## BERLIN



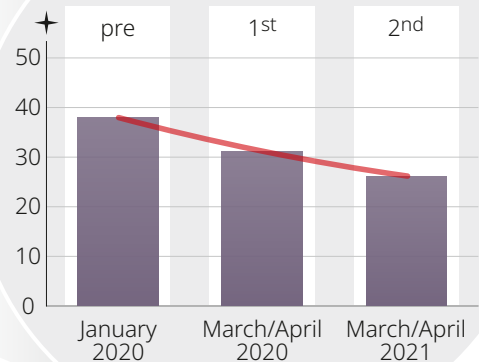
### COMPARISON



## GERMANY



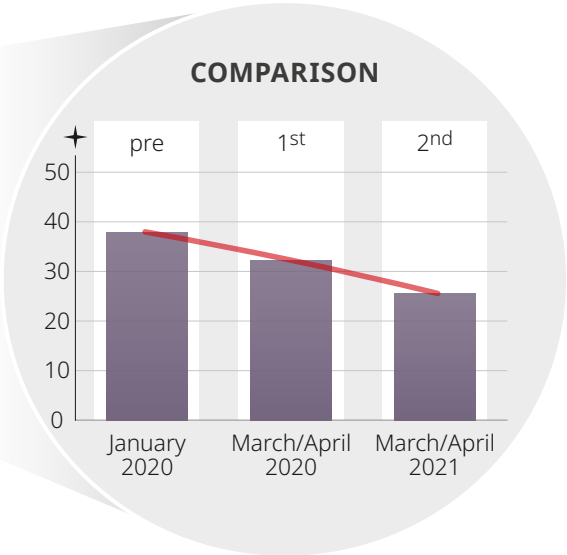
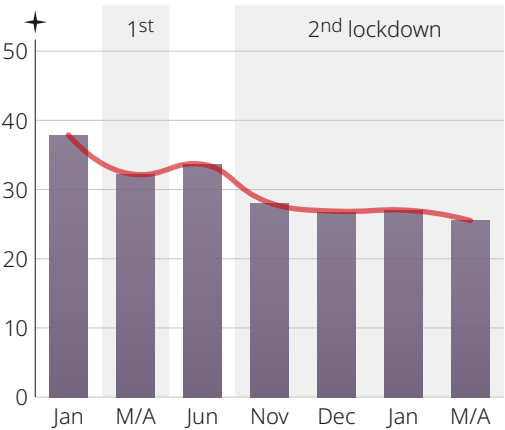
### COMPARISON



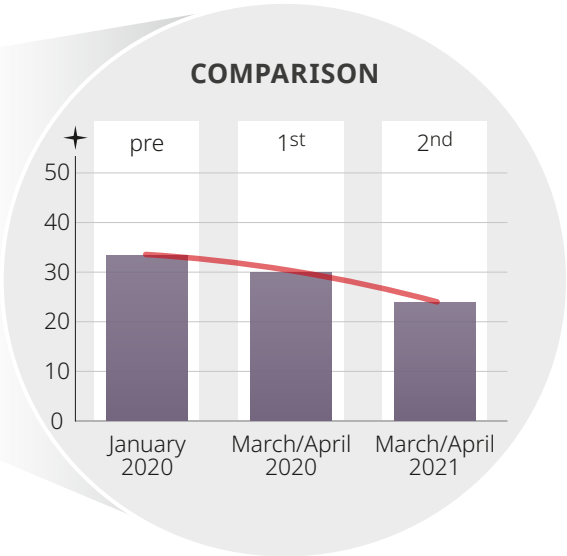
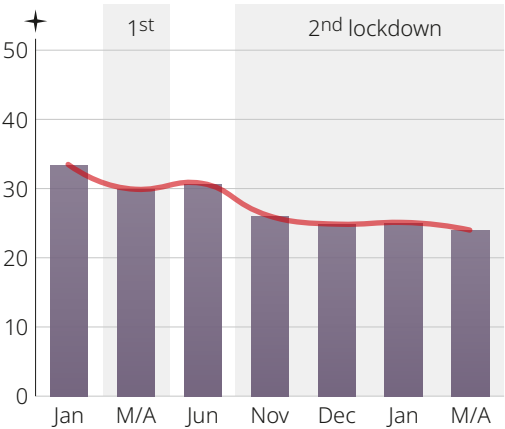
During the re-opening, participants reported a **slight increase** in belonging compared to the first lockdown. However, in the second lockdown this feeling of belonging **decreased** again.



EUROPE



WORLD





# 7

## CONCLUSION & FUTURE OUTLOOK

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## 7.1 CONCLUSION

This first edition of the CovSocial brochure provides an initial descriptive overview of how the well-being and social lives of a large sample of Berliners were impacted by the COVID-19 pandemic in 2020 and 2021, in particular during the first lockdown in March/April 2020, the re-opening in summer 2020 and then during the second prolonged lockdown from November 2020 to March/April 2021. It focuses on describing the changes in multiple indicators of mental health and vulnerability, psychological resilience and social cohesion among 1259 Berliners over seven measurement time points.

Through the various chapters of this brochure, we have been able to delineate that the COVID-19 pandemic has had *far-reaching effects on the well-being and lives of Berliners*.


Firstly, we were consistently able to observe in the data that mental well-being, resilience and social cohesion declined during the first lockdown in March 2020. We term this the *acute first lockdown shock effect*. Next, we could show that the re-opening in *June 2020 led to a recovery* of all these negative trends, but very seldom fully back to the baseline levels reported before the pandemic in January 2020. Lastly, we could show that mental well-being, resilience and social cohesion fell again during the second lockdown in autumn, and



then more importantly continued to fall with each passing month during the second, longer lockdown from November to March/April 2021. The latter was conceptualised as ***the second lockdown fatigue effect***. This lockdown fatigue effect led to levels of depressiveness, loneliness, stress and negative feelings being much higher among the population of Berlin at the end of the second lockdown in 2021 compared to a year earlier during the first lockdown in 2020.

Similarly, protective factors such as ***positive emotional states, optimism*** and the ***ability to bounce back from stress***, as well as ***trust*** and ***feelings of belonging*** towards friends, their city and the world at large declined during ***both lockdowns***.

Overall, ***the youngest age group as well as women*** seemed to ***suffer most*** from all these mental health challenges, although interestingly these groups were often already more vulnerable and less resilient before the global crises hit. For a succinct overview of our findings, please also refer to the executive summary section provided at the beginning of this report.



## 7.2 FUTURE OUTLOOK

In this publication we exclusively presented descriptive results, and future peer-reviewed publications will investigate the statistical reliability of these purely descriptive findings. Future analyses of the CovSocial project data will shed more light on the context and the demographic factors, as well as on individual differences in the character traits of participants and how these affected the way Berliners reacted to these unpredicted collective stressors during this global crisis.

Firstly, we will examine how our various demographic and context variables, such as gender, age, household income, marital status, living situation and education influence the depicted time-courses of mental health, resilience and social cohesion during the pandemic. This would help us identify which groups are most vulnerable to displaying negative outcomes when collective stressors occur, such as in the pandemic-related lockdowns.

Next, we will analyse the impact of enduring personality traits among our participants which we assessed with psychological trait questionnaires, such as trait pessimism, trait neuroticism and chronic stress, on changes in mental well-being, psychological resilience and social cohesion over time. These analyses will provide insights into which personality characteristics may buffer any potentially negative influences of such collective stressors on the development of mental health and which characteristics may help strengthen resilience and foster adaptive social capacities.







Moreover, another future avenue of analyses would focus on the analyses of the genetic markers associated with vulnerability, resilience and social cohesion obtained in this project and how these markers interact with context variables and individual trait factors to produce distinct time-courses of mental health, resilience and social cohesion during the pandemic.

Furthermore, we will also examine the interrelationships between our markers of vulnerability, resilience and social cohesion before the pandemic hit Berlin and throughout the changes observed during 2020 and 2021 to gain a better understanding of how different aspects of resilience and social cohesion are related in helping to buffer negative health outcomes.

Altogether, this will provide a comprehensive picture of how groups of individuals possessing particular individual trait factors and a particular genetic make-up will display a certain trajectory of mental health, resilience and social cohesion during a global stressor such as the pandemic.

Lastly, in its second ongoing phase the CovSocial project is evaluating whether brief online psychological interventions can alleviate the negative psychosocial impact of the pandemic and the lockdowns among a sub-sample of Berliners. One group will be trained in mindfulness-based stress-reduction techniques over the course of 10 weeks and another group will be given 10 weeks of socioemotional training, both of which are known to have the potential to reduce stress and foster well-being.



Future editions of the CovSocial report will bring further clarity to the different trajectories of mental health, resilience and social cohesion as a function of context and trait variables, genetic markers and psychological interventions. Furthermore, such future editions of the CovSocial report will also highlight whether levels of stress, loneliness, depressiveness and anxiety, which may have increased throughout the pandemic, can be reduced again through mental training interventions, and whether such interventions may also foster empathy, prosocial behaviour and resilience.

For further information or if you have any questions about the findings presented in this publication, please get in touch with our team ([info@covsocial.de](mailto:info@covsocial.de)).

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