

# COVID-19

# Living, working and COVID-19: Methodological Annex to Round 1

**Living, working and COVID-19** 

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## Introduction

In the space of just a few weeks, the COVID-19 pandemic caused by the novel coronavirus has radically transformed the lives of people around the globe. Apart from the devastating health consequences on people directly affected by the virus, the COVID-19 pandemic has had major implications for the way people live and work, affecting their physical and mental well-being in a profound way.

To capture the immediate economic and social effects of this crisis, Eurofound launched a large-scale online survey across the European Union and beyond on 9 April. Entitled *Living*, working and COVID-19, the aim of the survey is to investigate the impact on well-being, work and telework and on the financial situation of people across the European Union. It includes a range of questions relevant to people across various age groups and life situations. Most of the questions are based on Eurofound's European Quality of Life Survey (EQLS) and European Working Conditions Survey (EWCS), while other questions are new or were adapted from other sources, such as the EU Statistics on Income and Living Conditions (EU-SILC).

The survey will be fielded in two waves and an additional follow-up for those respondents that agreed to be part of the panel. The second wave will be fielded at the end of May and the follow-up will run in July.

The survey is open to anyone across the globe, aged 18 and over. By April 30, 86,457 people had taken part in the survey. This resulted in 62,755 complete responses. The survey will remain online over the next few months in order to capture the impact across time of the COVID-19 pandemic on life and work; a report presenting the final results will be published in September 2020.

The aim of this Working Paper is to describe the methodology used in the design of the questionnaire and implementation of the first wave of the survey.

## Design and implementation of the survey

Although Eurofound has a long tradition of fielding surveys - it has three regular pan European surveys (the European Working Conditions Survey, the European Quality of Life Survey and the European Quality of Life survey) – the "Living, working and COVID-19" survey is the first that Eurofound has fielded online.

Eurofound decided to develop an online tool, using non-probabilistic sampling methods, instead of the traditional random probability methodology applied to the three regular surveys, in order to be able quickly capture the immediate economic and social impact of the COVID-19 pandemic in the European Union and beyond.

#### Design of the questionnaire

To achieve this, a questionnaire composed of 4 main sections - well-being, work and telework, living conditions and financial situation of European, socio-demographic and the household composition of the respondent - was developed, consisting of 34 questions.

The questions pertain to people across various age groups and life situations. Most are based on Eurofound's European Quality of Life Survey (EQLS) and European Working Conditions Survey (EWCS), while other questions are new or were adapted from other sources, such as the EU Statistics on Income and Living Conditions (EU-SILC).

The full English online version of the questionnaire can be found in final section of this Working Paper.

The questionnaire was developed in English but the survey was made available and launched in 22 languages: Bulgarian, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Polish, Portuguese, Romanian, Slovak, Slovene, Spanish and Swedish. Existing translations from the EQLS and EWCS were used; new questions were translated by Eurofound's translation services.

A set of filters and rooting was applied to the questionnaire in order to adapt the questionnaire to the particular situation of the respondents, i.e. the work and telework section was asked only to those in employment.

The survey is designed to include a panel element so that it is possible to monitor changes of living and working conditions among the same respondents. For this purpose, a final question asks the respondents to leave their email address.

In the next wave, the core questionnaire will be complemented with additional modules tailored to the specific employment status of the respondent.

#### Implementation and launch of the survey

The online questionnaire was generated using SoSci Survey (Leiner, 2016) and was made available to users via www.soscisurvey.de.

For data protection reasons the survey was open to people aged 18 or over and a GDPR note was made available to the respondents.

#### Online survey outreach strategy

Survey participants were recruited using online snowball sampling methods and social medial advertisements.

The survey went online on April 9, when a call to participate launched via Eurofound social media channels. In the following days, the call for participation was extended to Eurofound subscribers and additional media outlets; the call was also reposted on social media. Analyses of all clicks on the landing page reveal a substantial multiplication due to the link of the survey being widely shared on social media, email and other channels. In order to increase the diversity of participants and to ensure a better socio-demographic balance among participants a campaign of targeted advertisement on social media was conducted throughout the month of April.

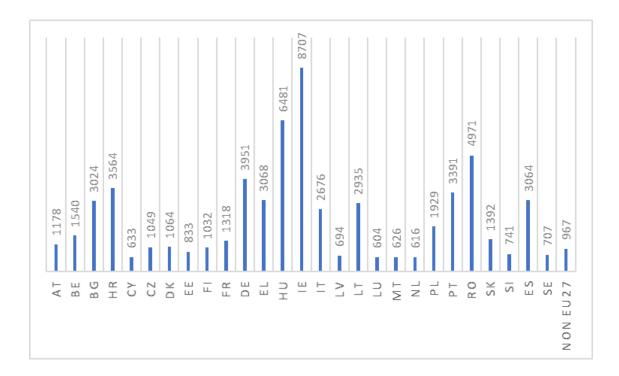
#### Survey participation

By April 30,2020, 86,457 respondents had participated in the survey, of which 84,521 were from the European Union. The data was cleaned with partial interviews, interviews with high nonresponse and interviews with people outside the target age group removed. The total number of interviews after cleaning was 62,755, of which 61,788 were from the EU. The share of clean responses out of the total participation was 73%. 27,823 respondents left their email address in order to be re-contacted for participation in panel (44% of cleaned responses).

The participation was unequally distributed among EU Member States. In particular:

- 3,000 responses or more had been collected in 9 Member States (BG,HR,DE,EL,HU,IE,PT,RO,ES).
- More than 1,000 but less than 3,000 had been collected in 10 Member States (AT,BE,CZ,DK,FI,FR,IT,LT,PL,SK)
- More than 600 and less than 1,000 had been collected in 8 Member States (CY,EE,LV,LU,MT,NL,SI,SE)
- A total of 962 responses had been collected from countries outside the EU, including the UK.

Figure 1 - Number of cleaned responses by Member State



#### Weighting and statistical methodology

Individual level data have been aggregated in order to have country-level and EU27 averages. In order to do that, all individual responses were re-weighted to be representative of each respondent's country's demographic.

Data was weighted by age crossed with gender (in 12 age-gender combinations), urbanisation level (2 categories) and education level (2 categories). Weighting targets for each country included 2019 population estimates from Eurostat by age and gender, self-defined urbanisation levels by age and gender as measured in the 4<sup>th</sup> EQLS, and education levels by age and gender from the 2018 Labour Force Survey. Weighting was completed with the anesrake R-package (Pasek, 2020) by country, then the resulting weights were grossed up to population size. Finally, extreme weights were trimmed using the trimWeights function of the survey R-package (Lumley, 2020).

Analytical reports use minimum thresholds for sample size by each population group that can be used for reporting. These minimum thresholds are based on effective sample size for each question. The effective sample size following the Kish (1965) formula not only considers the number of respondents for a given question but corrects also for the composition of the survey by taking into account the design effect due to weighting. This is particularly important for an open on-line survey because the response to such surveys can be skewed towards particular demographic groups or countries (e.g. see figure 1 above).

The minimum thresholds are:

- If the effective sample size is smaller than 100, results are not reported.
- If the effective sample size is 100 200, results are marked with a \* and a footnote explains that that data point has low reliability

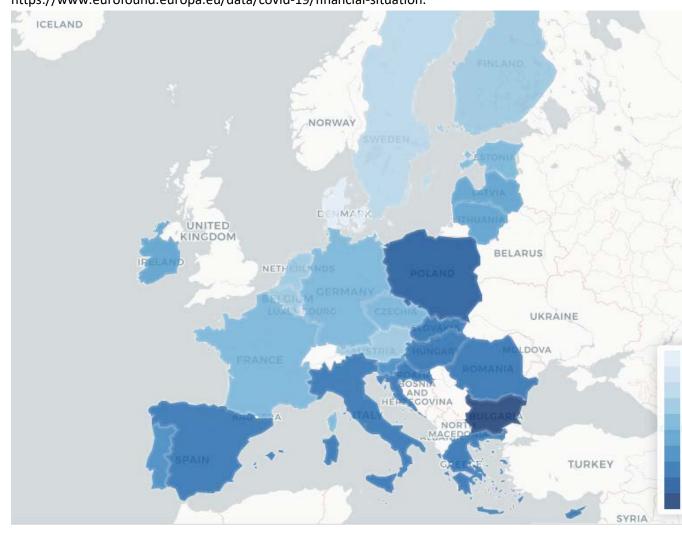
If the effective sample size is >=200, results are shown normally.

#### **Data Visualisation tool**

The results of the survey are visualised on the Eurofound website:

https://www.eurofound.europa.eu/data/covid-19. The visualisation has been created with R Shiny (https://shiny.rstudio.com/) and relies strongly on the Leaflet (https://leafletjs.com/) and Plotly (https://plotly.com/) libraries. The figures presented in the data visualisation are weighted and the same minimum threshold as described above are applied. As an example, the following map was downloaded directly from the Data Visualisation tool.

Figure 2 – Proportion reporting the financial situation of their household got worse compared with 3 months ago (%, EU27);Downloaded from: https://www.eurofound.europa.eu/data/covid-19/financial-situation.



# Wave 1 core questionnaire

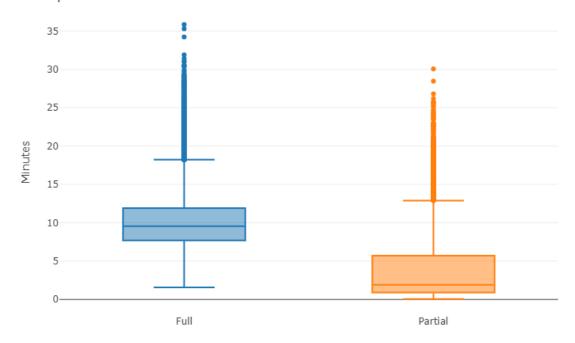
In this section the questionnaire of the first wave of the online survey is presented.

The questionnaire included a range of questions relevant to people across various age groups and life situations. Most of the questions are based on Eurofound's European Quality of Life Survey (EQLS) and European Working Conditions Survey (EWCS), while other questions are new or were adapted from other sources, such as the EU Statistics on Income and Living Conditions (EU-SILC).

#### Completion time

The questionnaire was designed to take on average 10 minutes time for respondents to complete it. Analyses of the survey metadata reveal that the median time to respond was 9 minutes and 30 seconds, with 50% of respondents spending from 7 minutes and 45 second to 11 minutes and 50 seconds. Respondents who did not complete the questionnaire mostly dropped out after less than 2 minutes.

Figure 3 - Scatterplot of completion time for full and partial questionnaires Time spent



#### The questionnaire

On the SocSci platform, the questionnaire was organised in multiple pages. What follows is the exact transcript of the English version of the questionnaire as it appeared online, divided by section. Additionally, information about the source of re-used questions is provided in parentheses.

#### **Section 0 Introduction text**

The COVID-19 pandemic is having wide-ranging effects on people's quality of life and work. This 10-minute survey aims to capture the most immediate changes and their impact.

# This is about you. Your life. Your work. Together we will help shape the response to this crisis.

The questionnaire is divided into five short sections. Please answer all questions. If you don't know the answer to a question or don't wish to give an answer, simply click 'don't know'/'prefer not to answer' to move to the next question.

The survey is open for persons that are **18 years** or older. By starting the survey, you confirm you are **18 years** of age or older.

The survey is designed for people living in the EU, but it asks questions about well-being that will be interesting to answer for people from any country.

Participation is entirely voluntary.

All responses are being collected anonymously. See Data protection notice for

#### **Section 1: Background questions**

Q1 In which country do you live? Scroll bar

**Q2 How would you describe yourself?** (Source: FRS, Fundamental Rights Agency)

- 1. Male
- 2. Female
- 3. In another way
- 4. Don't know/ prefer not to answer

Q3 How old are you? (EWCS (here and after regarding EWCS, see Eurofound (2019))

Age range

Don't know/prefer not to answer

#### Section 2: Quality of life

Q4 All things considered, how satisfied would you say you are with your life these days? Please tell me on a scale of 1 to 10, where 1 means very dissatisfied and 10 means very satisfied. (EQLS (here and after regarding EQLS, see Eurofound, 2017) Q4)

Scale 1-10

Don't know/prefer not to answer

Q5 Taking all things together on a scale of 1 to 10, how happy would you say you are? Here 1 means you are very unhappy and 10 means you are very happy. (EQLS Q5)

Scale 1-10

Don't know/prefer not to answer

**Q6 To what extent do you agree or disagree with the following statements?** (EQLS Q7a,b, f,g)

- a) I am optimistic about my future
- b) I am optimistic about my children's or grandchildren's future
- c) I find it difficult to deal with important problems that come up in my life
- d) When things go wrong in my life, it generally takes me a long time to get back to normal

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Don't know/prefer not to answer

#### Q7 In general, how is your health? (EQLS Q48)

Very good

Good

Fair

Bad

Very bad

Don't know/prefer not to answer

Q8 Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. (EQLS Q51 (WHO-5 Mental health index))

- a. I have felt cheerful and in good spirits
- b. I have felt calm and relaxed
- c. I have felt active and vigorous
- d. I woke up feeling fresh and rested
- e. My daily life has been filled with things that interest me

#### **Section 2: Quality of life (continued)**

Q9 Please indicate for each of the three statements which is closest to how you have been feeling over the last two weeks. (EQLS Q52)

- a. I have felt particularly tense
- b. I have felt lonely
- c. I have felt downhearted and depressed

All of the time

Most of the time

More than half of the time

Less than half of the time

Some of the time

At no time

Don't know/prefer not to answer

Q10 Please tell me how much you personally trust each of the following institutions. Please tell me on a scale of 1 to 10, where 1 means that you do not trust at all, and 10 means that you trust completely. (EQLS Q35)

- A) The news media
- B) The police
- C) Your country's government
- D) The European Union

#### **Section 3: Work and teleworking**

Q12 Which of these categories best describes your situation? (EQLS HH2d, adapted)

**Employee** 

self-employed with employees

self-employed without employees

unemployed

unable to work due to long-term illness or disability

retired

full-time homemaker / fulfilling domestic tasks

Student

Don't know/prefer not to answer

#### Section 3: Work and teleworking (continued)

#### Q13 During the covid-19 pandemic have you lost your job(s)/contract(s)?

Yes, permanently

Yes, temporarily

No

Don't know/prefer not to answer

Routing Q14 to Q19: ask if employee, self-employed or (unemployed) at Q12 (Codes 1-4)

#### Q14 During the covid-19 pandemic have your working hours...

Decreased a lot

Decreased a little

Stayed the same

Increased a little

Increased a lot

Don't know/prefer not to answer

#### Q15 How often in the last 2 weeks, have you...? (EWCS Q45)

- A. kept worrying about work when you were not working
- B. felt too tired after work to do some of the household jobs which need to be done
- C. found that your job prevented you from giving the time you wanted to your family
- D. found it difficult to concentrate on your job because of your family responsibilities
- E. found that your family responsibilities prevented you from giving the time you should to job

**Always** 

Most of the time

Sometimes

Rarely

Never

Don't know/prefer not to answer

# Q16 Over the last 2 weeks, how often have you worked in your free time to meet work demands? (EWCS Q46)

Daily

Several times a week

Several times a month

Less often

Never

Don't know/prefer not to answer

#### Section 3: Work and teleworking (continued)

**Q17** How frequently did you work from home before the outbreak of Covid-19? (Source: adapted from Hodziz et al (2020); answer codes EWCS)

Daily

Several times a week

Several times a month

Less often

Never

Don't know/prefer not to answer

Q18 Have you started to work from home as a result of the COVID-19 situation?

(Source: Bevan et al., 2020)

Yes

No

Don't know

Q19 Using this scale, how likely or unlikely do you think it is that you might lose your job in the next 3 months? (EQLS Q21)

Very likely

Rather likely

Neither likely nor unlikely

Rather unlikely

. . . . . . . .

#### Section 4: Financial situation/consequences

Q20 A household may have different sources of income and more than one household member may contribute to it. Thinking of your household's total monthly income: is your household able to make ends meet....? (EQLS Q88)

Very easily

Easily

Fairly easily

With some difficulty

With difficulty

With great difficulty

Don't know / prefer not to

answer

Q21 Thinking about food, over the last two weeks did you or someone else in your household change your diet because money was needed for other essentials? (EQLS Q90)

- a. Gone without fresh fruit and vegetables
- b. Bought cheaper cuts of meat or bought less than wanted

#### Section 4: Financial situation/consequences (continued)

Q22 Has your household been in arrears at any time during the past 3 months, that is, unable to pay as scheduled any of the following? (EQLS Q93)

- a. Rent or mortgage payments for accommodation
- b. Utility bills, such as electricity, water, gas
- c. Payments related to consumer loans, including credit card overdrafts (to buy electrical appliances, a car, furniture, etc.)
- d. Telephone, mobile or internet connection bills
- e. Payments related to informal loans from friends or relatives not living in your household
- f. Payments for healthcare or health insurance

Yes

No

Don't know/prefer not to answer

Q23 When you compare the financial situation of your household 3 months ago and now would you say it has become better, worse or remained the same? (EQLS Q98)

Better

The same

Worse

Don't know /prefer not to answer

Q24 Thinking of the financial situation of your household in 3 months' time do you think it will become better, worse or remain the same? (adapted from Eurobarometer)

Better

The same

Worse

Don't know/prefer not to answer

**Q25** If your household would not receive any income, how long would your household be able to maintain the same standard of living using savings? (Source: HV080 in EU-SILC 2020 (European Commission 2020))

- 1. Less than 3 months
- 2. From 3 up to 6 months
- 3. From 6 up to 12 months
- 4. 12 or more months
- 5. No savings

Don't know/prefer not answer

Note: Savings should be understood as money the household has at the bank or at home

#### Section 4: Financial situation/consequences (continued)

Q26 How likely or unlikely do you think it is that you will need to leave your accommodation within the next 6 months because you can no longer afford it? (EQLS Q26)

Very likely

Rather likely

Neither likely nor unlikely

Rather unlikely

Very unlikely

Don't know / prefer not to answer

# Q27 From whom would you get support in each of the following situations? For each situation, choose the most important source of support. (EQLS 40, adapted)

- a. If you needed help around the house when ill
- b. If you needed advice about a serious personal or family matter
- c. If you needed help when looking for a job
- d. If you were feeling a bit depressed and wanting someone to talk to
- e. If you needed help in looking after your children
- f. If you needed help with shopping

A member of your family / relative

A friend, neighbour, or someone else, who does not belong to your family or relatives

A service provider, institution or organisation

Nobody

Don't know/prefer not to answer

#### **Section 5: background questions**

Q28 Including yourself, can you please tell me how many people usually live in your household? (EQLS HH1)

Don't know/prefer not to answer

Q29 Do you have a spouse/partner that lives in your household?

Yes

No

Don't know/prefer not to answer

Q30 How many children live in your household?

Age 0-11 -----

Age 12-17 -----

#### **Section 5: background questions (continued)**

**Q31 What is the highest level of education you completed?** (EQLS Q87; answer categories adapted)

Primary education

Secondary education

Tertiary education (e.g. education following the completion of secondary education)

Don't know/prefer not to answer

Q32 Please select your region from the list below (Note: NUTS1 region list)

Scroll bar

Don't know/prefer not to answer

**Q33** A final question: May we contact you again sometime soon to ask you some more questions to see if your situation has changed? If yes, please enter your email address below. There is no obligation on your part.

[email address]

Don't know/prefer not to answer

In accordance with the regulation (EU) 2018/1725 on the protection of natural persons with regard to the processing of personal data by the EU institutions, bodies, offices and agencies, this information is stored separately from your answers to the questionnaire and will only be used to send you links to the questionnaire. These data would be retained for a maximum of two years would only be used for the purpose mentioned.

**Q34** Do you wish to receive a short report about the results? If yes, we will send it to the email address you have provided.

Yes

No

## Conclusion

In order to capture the immediate economic and social effects of this crisis, on April 9 2020 Eurofound launched a large-scale online survey across the European Union and beyond. Entitled Living, Working and COVID-19, and organised in multiple waves, the survey aims to investige the immediate impact of the COVID-19 crisis on well-being, work and telework and on the financial situation of people aged 18 and over.

Survey participants were recruited using online snowball sampling methods and social media advertisement and during the month of April (9-30), more than 85,000 people in the EU27 took part in the first wave of the survey. Individual responses were then re-weighted in order to be representative of each respondent's country demographic in terms of gender, age, education and place of residence and EU27 and country-level averages were produced.

The first results recorded in April 2020 show a Europe grappling to respond to the crisis caused by the COVID-19 pandemic with many respondents reporting high levels of loneliness coupled with low levels of optimism about their future. Overall, people report a low level of well-being. Respondents are also reporting dramatically low levels of trust in the EU and their national governments. The survey findings confirm an increase in telework and, for a large number of respondents, a feeling of insecurity regarding their jobs with a dramatic decrease in working time. Finally, the survey paints a stark picture of people across the European Union who have seen their economic situation worsen and are deeply concerned about their financial future.

The survey will remain online over the next few months in order to capture the impact of the COVID-19 pandemic on life and work in the EU across time. A second wave will be launched at the end of May and respondents that left their email for a follow-up survey will be contacted again in June. The final results will be published in September 2020.

## References

All Eurofound publications are available at www.eurofound.europa.eu

Bevan S., Mason B., Bajorek Z. (2020), Working at Home Wellbeing Survey, Institute for Employment Studies (IES), Apr 2020.

European Commission (2019), COMMISSION REGULATION (EU) 2019/414 of 14 March 2019 implementing Regulation (EC) No 1177/2003 of the European Parliament and of the Council concerning Community statistics on income and living conditions (EU-SILC) as regards the 2020 list of target secondary variables on over-indebtedness, consumption and wealth as well as labour, in: *Official Journal of the European Union*, 15.3.2019.

Eurofound (2019), 7<sup>th</sup> European Working Conditions Survey - Source questionnaire (unpublished).

Eurofound (2016), 4<sup>th</sup> European Quality of Life Survey – Source questionnaire.

FRA (2019, unpublished), Fundamental Rights Survey.

Hodzic, S., Prem, R., Kubicek, B., Borteyrou, X., Zenasni, F., Villajos Girona, E. (2020), 'Telework experiences during the COVID-19 pandemic', online notice by University of Graz (https://psychologie.uni-graz.at/en/work-and-organizational-psychology/research/ongoing-projects/telework-experiences-during-the-covid-19-pandemic/; questionnaire accessed on 30/03/2020 at https://www.soscisurvey.de/telework-study/).

Kish, L. (1965). Survey sampling. New York, NY: John Wiley & Sons.

Leiner, D. J. (2019). SoSci Survey (Version 3.1.06) [Computer software]. Available at https://www.soscisurvey.de.

Lumley T (2020). Survey: analysis of complex survey samples. <a href="https://CRAN.R-project.org/package=survey">https://CRAN.R-project.org/package=survey</a>.

Pasek, Jo. (2020). ANES Raking Implementation, https://CRAN.R-project.org/package=anesrake.

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