9th Conference of the European Survey Research Association (ESRA) 9 July 2021



COLLECTING SURVEY DATA AMONG THE 50+ POPULATION IN EUROPE DURING THE COVID-19 PANDEMIC: CONSEQUENCES OF A MODE SWITCH ON DATA QUALITY IN AN ONGOING PANEL STUDY

Michael Bergmann Salima Douhou Elena Sommer





This project has received funding from the European Union under grant agreement VS 2020/0313 and the European Union's Horizon 2020 research and innovation programme under grant agreements No 870628, No 101015924





Overview



- How did SHARE react to the pandemic?
 → presentation by Elena Sommer
- 2) Impact of mode switch (CAPI \rightarrow CATI) on:
 - a) Participation
 - b) Data quality
 - Representativeness
 - Comparability of data
- 3) Lessons learned & outlook

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How did SHARE react to the pandemic AND RETIREMENT SHARE managed to turn a challenge into Please find here an overview of SHARE's most important developments from the beginning of the COVID-19 a chance: In midst of the pandemic, the crisis in 2020 until beginning of 2021. This timeline aims to give a brief and clear impression on SHARE's SHARE team digitalized all events, re-dechallenges and achievements during the crisis: signed Wave 8 to its first ever SHARE telephone survey and added a module with Corona-specific questions. STO January February Mid March May 2020 Fieldwork of the First cases of COVID-19 in SHARE had to stop the on-Digital Train-the-Trainer ses-8th Wave of SHARE Europe, followed by first going Wave 8 fieldwork in sion to prepare interviewers all SHARE countries. ongoing in all 28 lockdown measures in varin 28 countries for the new SHARE countries. ious European countries. fieldwork mode: Computer Assisted Telephone Interviews (CATI). November 1st December 17th August 11th August June Early release of SHARE Official start of the SHARE-The EU Commission accepted the Fieldwork successfully com-Start of the **first SHARE** Wave 8 COVID-19 data COVID19 research project proposal of the research project pleted in all countries. More Corona Survey in all 28 available for researchers with a digital kick-off event "SHARE-COVID19" to examine the than 60.000 respondents SHARE countries. all over the world. with all 14 partners. non-intended consequences of the could be fielded. epidemic control decisions to contain the pandemic. 2021 February March Summer 2021 Januarv First scientific results of Second Wave of the SHARE data is intensively used to examine SHARE-COVID19 research SHARE Corona Survey. the socio-economic and health conseguences of the epidemiological containment decisions and the long-term effects of the COVID-19 pandemic. SPONSORED BY THE This project has received funding from **Ba** MAX PLANCK INSTITUTE FOR SOCIAL LAW AND SOCIAL POLICY the European Union under grant Federal Ministry National Institute 3 agreement VS 2020/0313 and the of Education

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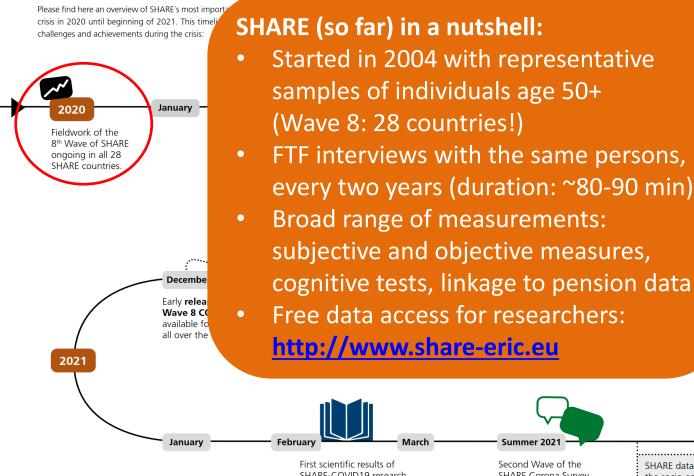
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and Research



How did SHARE react to the pandemic



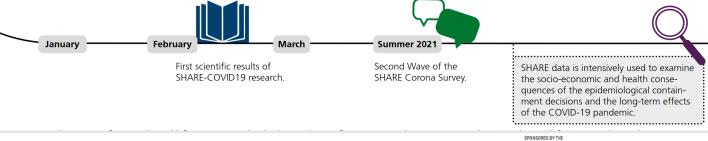




Digital Train-the-Trainer session to prepare interviewers in 28 countries for the new fieldwork mode: Computer Assisted Telephone Interviews (CATI).



fully comtries. More ondents Start of the **first SHARE Corona Survey in all 28 SHARE** countries.



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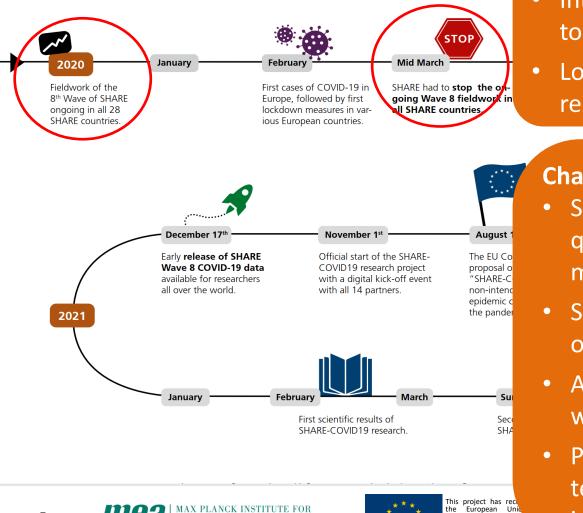
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How did SHARE react to the pandemic



Please find here an overview of SHARE's most important developments from the beginning of the COVID-19 crisis in 2020 until beginning of 2021. This timeline aims to give a brief and clear impression on SHARE's challenges and achievements during the crisis:



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Reasons for switch to CATI:

- Interviewer-administered mode to minimize mode effects
- Low internet usage of respondents 80+

Assisted Telephone Inter-

Challenges:

agreement VS 2020,

European Union's Horizon

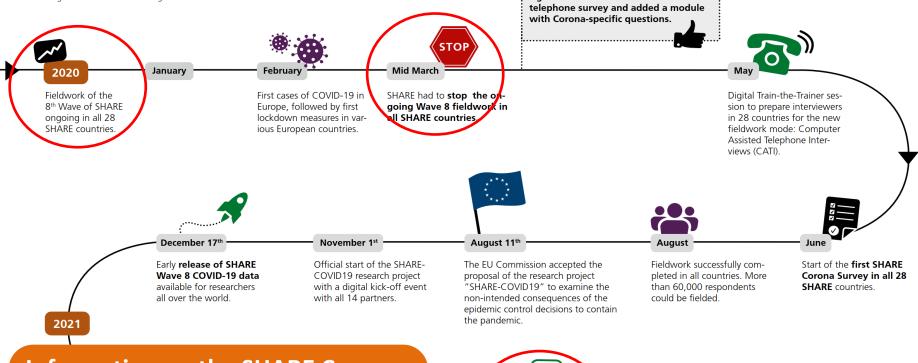
and innovation programme

- Shifting the complex SHARE questionnaire to another mode infeasible
- SHARE Corona Survey as addon (duration: ~20 min)
- Adaption of software tools \rightarrow web-based application (Quest)
- Programming, translation & testing of 40 national instruments/languages agreements No 870628, No 101

How did SHARE react to the pandemic

Please find here an overview of SHARE's most important developments from the beginning of the COVID-19 crisis in 2020 until beginning of 2021. This timeline aims to give a brief and clear impression on SHARE's challenges and achievements during the crisis:

SHARE managed to turn a challenge into a chance: In midst of the pandemic, the SHARE team digitalized all events, re-designed Wave 8 to its first ever SHARE telephone survey and added a module with Corona-specific questions.



Information on the SHARE Corona Survey (incl. access to the data): http://www.shareproject.org/share-covid19.html



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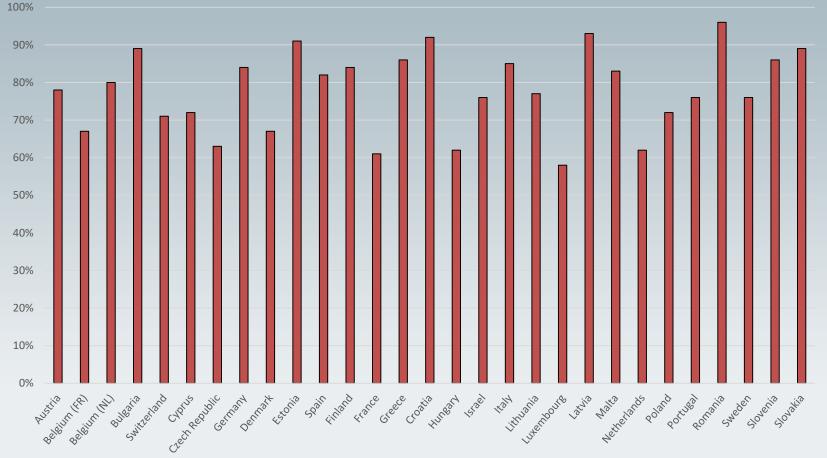
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Participation - SHARE Corona Survey (CATI)



Preliminary individual response/retention rates (AAPOR, RR4; households without valid telephone number excluded)



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Key question: Who does and who does not respond in a certain mode? Are CATI respondents different?

- Investigate predictors for attrition and interview mode to uncover clues about selective participation
- Logistic regression models for all respondents who participated ulletin the (pre-pandemic) Wave 7
 - The dependent variable measures participation in Wave 8 (CATI)
 - \succ The independent variables are from Wave 7 \rightarrow analyze pathways of panel respondents

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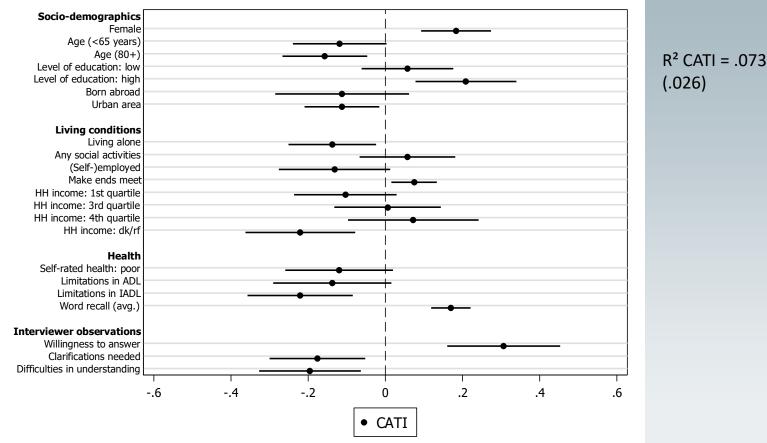




Representativeness: Results I



Average marginal effects (AMEs) for participation in 1st SCS



Data: SHARE Wave 8, preliminary data (CATI: n=57,317). Displayed are average marginal effects (weighted) with 95%-confidence intervals.

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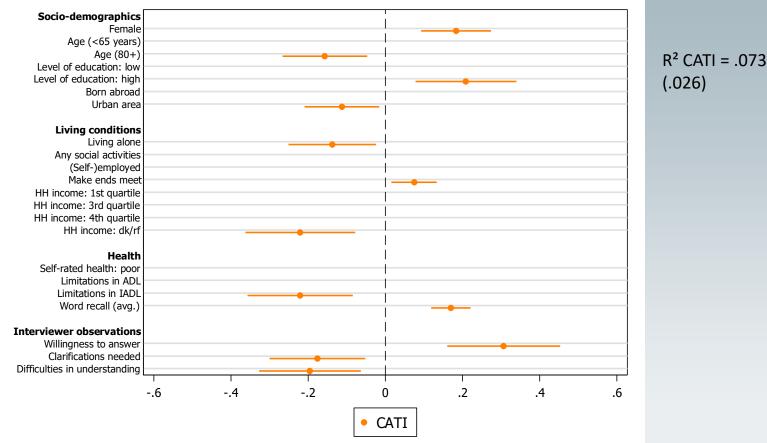
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Representativeness: Results II



Average marginal effects (AMEs) for participation in 1st SCS



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Key question: How is a question answered in a certain mode?

Same questions in the regular SHARE Wave 8 and the 1st SHARE Corona Survey:

- Feeling sad/depressed: "In the last month, have you been sad or depressed?"
- Sleeping problems: "Have you had trouble sleeping recently?"
- Loneliness: "How much of the time do you feel lonely?"

Item nonresponse:

 "How much was the overall income, after taxes and contributions, that your entire household had in an average month (CAPI) / in a typical month before Corona broke out (CATI)?"

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Comparability of data: Results I



Difference between CAPI and CATI responses (AMEs in %-points)

	CAPI (in %)	CATI (in %)	Mode	
Feeling sad/depressed	43.6	29.0	-14.6***	
Sleeping problems	36.8	27.3	-9.5***	
Feeling lonely	29.6	29.9	0.3	

Data: SHARE Wave 8, release version: 0 (CAPI) and SHARE Wave 8 COVID-19 Survey 1, release version: 0.0.1 beta (CATI). The analysis sample includes all respondents who did both a CAPI and a CATI interview (n=34,848). Note: Regressions include controls for differences in sample composition: age categories (60-69, 70-79, 80+; reference: 50-59), female, educational level (ISCED level 3+4, ISCED level 5+6; reference: ISCED level 0-2), living alone, living in an urban area, and born abroad.

- Mode measurement effects seem to play a role •
- However, without further assumptions/experimental designs • true changes are difficult to separate from mode effects!

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Prevalence of feeling sad/depressed in Germany by survey mode (in %)

	W8 CAPI Oct `19 - Mar `20		W6 Oct - Mar `15	W6 Jun/Jul `15	W7 Mar `17	W7 Jun/Jul `17	CAWI Jun/Jul `20
Feeling sad/depressed	53.7	26.7	48.8	51.6	43.1	46.2	25.6

Data: SHARE Wave 8, release 0 (CAPI, n=4546; weighted) and SHARE Wave 8 COVID-19 Survey 1, release 0.0.1 beta (CATI, n=4532; weighted).

SHARE Wave 6, release 7.1.0 (n=3357; weighted); SHARE Wave 7, release 7.1.0 (n=314; weighted). CAWI data is from the Mannheim Corona Study (n= 11,017; sample restricted to June and July 2020 and 50+ respondents; weighted).

- Prevalence for CAPI seems rather stable at a high level; no huge difference between summer and winter
- Prevalence for CAWI during the pandemic is even lower than for CATI (despite a potential lower social desirability bias!)

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Comparability of data: Results III



Difference between CAPI and CATI responses (AMEs in %-points)

	CAPI (in %)	CATI (in %)	Mode
Household income (<750 €)	7.6	8.1	0.5
Household income (>=4000 €)	17.6	10.5	7.1***
Household income (dk & refusal)	15.8	19.2	3.4***

Data: SHARE Wave 8, release version: 0 (CAPI) and SHARE Wave 8 COVID-19 Survey 1, release version: 0.0.1 beta (CATI). The analysis sample includes all respondents who did both a CAPI and a CATI interview (n=34,848). Note: Regressions include controls for differences in sample composition: age categories (60-69, 70-79, 80+; reference: 50-59), female, educational level (ISCED level 3+4, ISCED level 5+6; reference: ISCED level 0-2), living alone, living in an urban area, and born abroad.

- Underrepresentation of high household incomes with CATI
- Higher item nonresponse, esp. regarding refusals
- Bracket questions further decrease item nonresponse for CAPI

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Conclusions



- Mode switch from CAPI to CATI has paid off ullet
 - about 60,000 interviews
 - understand the non-intended effects of epidemic control measures
 - use results to design better social, economic & public health policies
- CATI response rates were considerable (short timeframe!) \bullet
- Mixed picture regarding mode effects, but only first results! •
 - Moderate selection effects, but potentially large time effect due to COVID-19
 - possible data quality issues in CATI (underrepresentation of high household incomes; higher item nonresponse)
 - \rightarrow social desirability/less legitimacy, satisficing

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Lessons learned & outlook I



 Lessons from the recent pandemic are precipitating a major update of SHARE's methodology

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Shortened face-to-face interview of a *stable and concise core* questionnaire every two years

Additional *topical modules* between the core surveys
using other interview modes to address new developments more quickly

- But: Interviewers still play an important role in SHARE
 - to collect physical data (e.g. handgrip strength)
 - to motivate respondents (recruitment!) and build-up of rapport
 - to help with complex/cognitively demanding questions (esp. oldest old!) → data quality!

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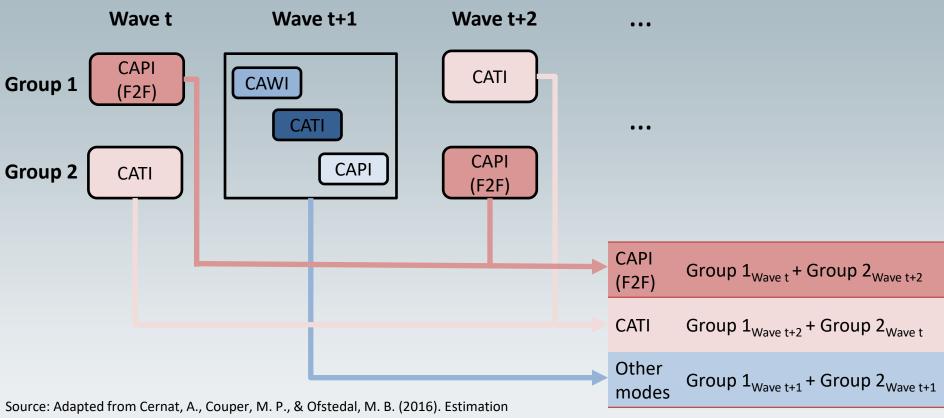
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Quasi-experimental data collection design and analysis strategy



of mode effects in the Health and Retirement Study using measurement models. Journal of Survey Statistics and Methodology 4(4): 501-524.

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