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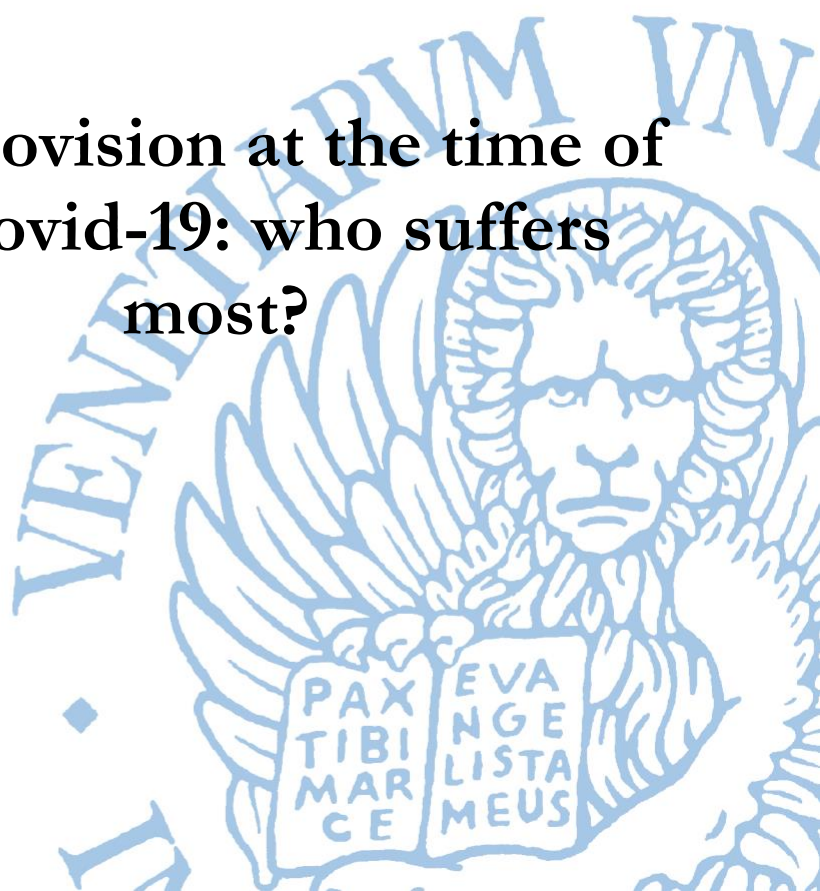
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**Care provision at the time of  
the Covid-19: who suffers  
most?**

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### Abstract

This paper focuses on the changes in care provision at the time of the COVID-19 outbreak by exploiting variation in lockdown policies across Europe. We use the SHARE-COVID-19 survey, which involves about 50000 respondents of age 50 and over in 26 countries, to investigate how the stringency of the policy measures have affected care provision. Our study is based on the linkage of the SHARE-COVID-19 data with an individual specific “stringency index” which measures the intensity of the restriction policies and the degree of individual’s exposure. We find that older individuals, low-income individuals and people affected by limitations in everyday life faced a higher probability of receiving help because of the lockdown policies. Women and people in the age group 50-65 were more likely to provide help/care, but we also uncover a complex interaction with the labour market condition of caregivers. Lockdown policies hit hard individuals who were already receiving care as they experienced a form of rationing, both due to higher financial costs and travelling restrictions. Since these individuals are already among the most fragile in society, our evidence raises concern and calls for a re-design of the welfare system.

### Keywords

Care provision, caregiving, caregiver, COVID-19, SHARE data, SHARE-COVID-19 questionnaire, lockdown policies

### JEL Codes

D1, I14, I18, J14, J16

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# Care provision at the time of the Covid-19: who suffers most?

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## Abstract

This paper focuses on the changes in care provision at the time of the COVID-19 outbreak by exploiting variation in lockdown policies across Europe. We use the SHARE-COVID-19 survey, which involves about 50000 respondents of age 50 and over in 26 countries, to investigate how the stringency of the policy measures have affected care provision. Our study is based on the linkage of the SHARE-COVID-19 data with an individual specific “stringency index” which measures the intensity of the restriction policies and the degree of individual’s exposure. We find that older individuals, low-income individuals and people affected by limitations in everyday life faced a higher probability of receiving help because of the lockdown policies. Women and people in the age group 50-65 were more likely to provide help/care, but we also uncover a complex interaction with the labour market condition of caregivers. Lockdown policies hit hard individuals who were already receiving care as they experienced a form of rationing, both due to higher financial costs and travelling restrictions. Since these individuals are already among the most fragile in society, our evidence raises concern and calls for a re-design of the welfare system.

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## 1. INTRODUCTION

Since the outbreak of the pandemic in March 2020<sup>1</sup>, the lives of individuals have been disrupted in several ways: from being directly affected by the virus and suffering health deterioration, to losing jobs or stopping economic activities and suffering the consequences of lockdown measures such as social distancing.

However, the impact and the spread of the disease has not been the same between (and even within) countries. For instance in Europe, Italy and Spain have been heavily hit by the first wave at very early stages, while Northern countries such as Finland and Sweden were almost unaffected and imposed

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<sup>1</sup> Although the outbreak of the pandemic has been dated by the WHO at the beginning of March 2020, scientific evidence suggests that the Coronavirus was already present in Europe from the Fall of 2019 (Apolone et al. 2020)

restrictions much later in the year. Furthermore, countries characterized by an ageing population have suffered the highest toll in terms of deaths caused by the Covid-19.

Governments faced an emergency scenario comparable to a war-time crisis, and responded with different policies aimed at contrasting the spread of the virus. In particular, working patterns and travelling have been severely affected: suddenly working from home became the norm and people experienced long periods of hard lockdown measures. Public spending had to be quickly diverted to funding hospitals and emergency health care units.

Many individuals, including older people, experienced isolation, income uncertainty, difficulties in receiving care, and a worsening of mental health conditions. Initial assessments of the impact of the COVID-19 crisis found that the combination of lockdown measures and the reduction of funds normally devoted to welfare policies enhanced these negative (unintended) effects in terms of foregone health treatment, missing visits to the doctor and lack of caring activities (OECD, 2020).

This paper explores one specific consequence of the COVID-19 crisis, that is the effect of public lockdown policies on the provision of help and care to older people, trying to identify an indirect mechanism through which the pandemic ultimately affected their wellbeing, on top of the more obvious direct route. Indeed, some older individuals faced difficulties in reaching out for help or care during the emergency, due to the lockdown and social distancing policies. This had also implications for their adult children, as the increased demand for help and care had to be covered within the family through “informal arrangements”. Many individuals in the age group 50-65 had to face a true challenge: while coping with new working arrangements or abrupt changes in working times, they also had to take care of family members.

In the recent months, a growing literature has analysed the effects of the Coronavirus on the economy and society, but there exists limited evidence on care provision. Some studies show that individuals with severe diseases, such as dementia (Wang et al. 2020) or cancer (Porzio et al. 2020) experienced difficulties in receiving care, and care givers in turn experienced anxiety and developed signs of exhaustion and burnout (Wang et al. 2020). Very little is known on informal home-care provision and challenges faced by home-care providers (Chan et al.,2020).

The few studies that investigate these issues show that Europe is facing a very serious and widespread societal problem: in the UK 17% of individuals having limitations with activities of daily living (ADL) reported not receiving any external informal assistance, pointing to potential unmet need for care (Evandrou et al.,2020). Using data from the ELSA COVID-19 study, Chatzi et al.,(2020) report that, during the coronavirus pandemic, 35% of caregivers stopped (or reduced) the amount of care

provided while 12% of women in the sample became new caregivers for someone outside the household.

A second relevant issue is that women have taken on the burden of such caring activities, and that the pandemic has changed in complex ways the pattern of care activities. For example, it has been shown that women were responsible for most of the unpaid care and domestic work even before the pandemic, being involved in grandparental childcare, which in turn has a positive effect on the labor force participation of their daughters (Bratti et al. 2015, Fenoll 2020). The Covid-19 crisis implied a sudden reduction of available professionals both for babysitting activities and for care to older people. So, one possible outcome is that adult daughters had to take on caring activities to help younger generations and older generations at the same time. Experience from past outbreaks in developing countries shows indeed that the social and economic impacts of pandemics fall harder on women than on men, a result which calls for the importance of incorporating a gender analysis in response to pandemic preparedness and to improve gender and health equity goals (Wehnam et al., 2020).

The aim of this paper is to explain the pattern of changes in care and help given during the Corona virus outbreak, as well as at the patterns of help and care received. In order to identify the effect of lockdown policies on care, we construct a summary variable (an index) measuring the intensity of such policies and exploit its geographical variation across time and between countries.

When looking at “help or care received”, we interact this index with individual characteristics such as current health status (measured by limitations in ADL), in order to assess whether more fragile individuals had to face the most severe consequences in terms of reduction in the supply of care.

Results suggest that the pandemic hit individuals differently according to the strictness of the lockdown policies, gender and pre-existing health conditions. Harder anti-pandemic policies increase the chance of receiving help from others for daily activities (outside the home). Also, for those already receiving care before the pandemic, the probability of experiencing difficulties in receiving help increased with the strictness of the policies.

When we focus on the caregivers, the sharpness of the policies increases the probability of providing both help and care to people outside the home, suggesting a substitution effect between formal and informal care to family members. Women are more likely to provide help or care with respect to men. Interesting relations between “giving more help or care” emerge for people who are part of the labour force (working or unemployed because of the Covid-19 crisis). There is an obvious problem of endogeneity of the decision to work and the caring activity decision, which suggests caution on drawing conclusions on the labor market effects of the pandemic policies for caregivers.

## 2. DATA

In this analysis we use the Covid-19 SHARE data: this survey was conducted in the Summer of 2020 and focused on the period of the outbreak of the pandemic. It contains information on health of the respondents, care given and care provided, working status, demographic variables and the general economic situation.

About fifty-thousand individuals were interviewed in 26 countries<sup>2</sup>. We augmented the SHARE COVID-19 survey to generate a unique dataset in several dimensions. First, we linked the information recorded in the Covid-19 Survey to the information retrieved from the regular waves of the panel. In particular the linkage was done with wave 8, for the countries that completed the interviews of wave 8 in 2019-2020, while for the other countries the pre-Covid information were retrieved from the previous available waves. Besides this set of variables, available at the individual level, we attached to each respondent an index (stringency index) of the extent and timing of lockdowns and other restrictive measures, as explained below.

We present a simple model of “help received” and “help or personal care given”. These activities typically would take place between generations: care given by adult children to their parents or help received by the older respondents in the Survey. In this sense, the SHARE data is also unique because we can look at the same time at more generations and different directions of help provision. Concerning the former outcome, we know whether the respondent received help with necessities in everyday life (e.g. food purchases, medications or emergency house repairs).

The other relevant question concerns the behaviour of respondents in terms of care given, in particular whether the respondent provided help for necessity or for personal care, as well as the frequency of provided care. While help for necessity involves relatively simple and ordinary tasks, which might have been performed due to the recommendations given to older people to “stay home”, providing personal care involves a more intense commitment, which might occur because of the limitation of ordinary care assistance due to the pandemic. Being able to address both types of activities and to investigate the care-relationship during the first wave of Covid-19 is crucial to understand the final effect on the wellbeing of older people, but also to assess the level of the “informal reserve of care” that older people can have access to when the public/formal welfare provisions and care provisions are rationed.

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<sup>2</sup> Austria did not take part in the Survey.

The lockdown measures play a key role in our study: during the pandemic governments implemented country-specific measures to limit the spread of the virus, with different intensity and length of the restrictions. These policies have been documented by the Oxford COVID-19 Government Response Tracker at country-day level. The tracker provides the so-called stringency index (from now on S-Index): an index that aggregates policy responses about schools' closures, workplaces' closure, canceling of public events, restrictions on gatherings, closure of public transports, "stay at home" requirement, restrictions on local travelling, international travel controls and public campaigns information. Each single policy has been collected on a daily basis and a certain degree of severity has been assigned to it. For example, schools' closure policy could be 0 if schools remained open, 1 if closure was recommended, 2 if it was required at certain school levels and 3 if the overall closure was required. The index is the average of the policy indicators on a daily basis. It spans from 0 to 100, with greater values associated with greater strictness<sup>3</sup>. Given the information on the interview day of each respondent from the Covid-19 Share questionnaire, we can match each respondent to the original stringency index of her country of residence on that day, but also to a measure of the cumulated exposure to stringency policy. In detail, we build a cumulative measure of the stringency index (S-index) by summing up, for each country, all daily stringency indexes from the start of the pandemic (in fact, since the 1<sup>st</sup> of January 2020) until the interview date, and by dividing this value by the total number of days elapsed between the start of the pandemic and the interview date.

As a result, countries that implemented lockdown policies later will have a lower index. At the same time, if two countries have the same start date of lockdown policies, but different intensity, the country with stricter policies will have a higher S-index.

This measure of stringency policies is expected to be positively correlated with the demand for help: with increasing mobility restrictions, older people experienced greater needs for necessities and personal care. At the same time, given schools' closure, older people may have provided help to family and relatives to take care of grandchildren.

Another important element is that, thanks to the information available in the previous waves of SHARE, we know the respondent's health status before the pandemic, the presence of limitations in activities of daily living (ADL and IADL), and other relevant conditions at the time of the outbreak, such as income and access to resources. We can also exploit other more "permanent" individual characteristics, such as the level of education. Finally, we can include in the model a large set of demographic and labour market characteristics.

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<sup>3</sup> For further information see Hale et al. (2020).

### 3. DESCRIPTIVE ANALYSIS

Table 1.1 reports the descriptive statistics for the 26 countries amounting to about 51,000 individuals: 57% of the respondents are females and the average age is 69. About 35% of the sample has low education, 40% middle education (at least secondary school) and 23% a college degree or more. About 20% report limitations in ADL (40% limitations in IADL).

A large fraction of respondents (26%) received help for necessities during the outbreak of the pandemic, among those who were receiving care before the pandemic 21% of them experienced difficulties in receiving care since the outbreak of the pandemic. The difficulties in receiving care range from logistic/mobility limitations, such as problems for the caregiver reaching the respondent's home, to economic constraints, like having to pay a higher price for care. Regarding help provided: 15.3% of the respondents report to provide help for necessities such as food purchases, medications and housing repairs, while only 3.3% provided personal care outside home.

Table 1.2 shows mean and standard deviation of the S-index: Italy is the country exhibiting the highest mean value of the index, which is in line with the timing of policy responses and severity of the adopted measures. Northern countries and Eastern countries are characterised by the lowest average values. Interesting enough, some countries exhibit a much higher variability of the S-Index (e.g. Sweden), which may be due to the number and timing of interventions. Figures 1.1 and 1.2 show the distribution of the S-index for the entire sample and for selected countries, respectively. In Italy the S-index is highly concentrated at values above 50, at the other extreme we obtain highly concentrated values around 36 for Finland. Germany, Portugal and Sweden exhibit higher variability of the S-index, but quite different mean/median values. For brevity, we do not report all the countries: these cases are valid examples of the variability in the severity of the policy measures implemented, possibly correlated to the spread of the virus in each country and the timing of the outbreak.

In Table 1.3 we present pairwise correlations between the variables: there exists a positive correlation between providing informal personal care and the stringency index, as well as a correlation between difficulties in receiving care and the index. However, these are simple unconditional correlations and should be interpreted with care: a more complete model can uncover some of the relevant mechanisms of transmission of the policies.

Figures 1.2-1.8 show various distributions of “help/care received” or “help/care given” by gender and geographical areas. Females are more likely than males to receive help; some countries stick out like Germany and Sweden for a very high prevalence of “help received”, Southern Europe shows the



highest prevalence of “difficulty in receiving care at home” and Italy is by far the most prominent case. Help and care seem to be provided mostly by women.

#### 4. EMPIRICAL STRATEGY AND RESULTS

We first model the probability of receiving help at home as a function of the severity of the policy responses – recorded at the level of the country and time - and demographic characteristics:

$$\text{Receiving help}_i = \alpha + \beta_1 \text{index\_Stringency}_i + \mathbf{X} \text{Demographics}_i + \gamma \text{AreaDummy}_i \quad (1)$$

“Receiving help” is a dummy variable taking value 1 if the respondent gave a positive answer to the question: “*Since the outbreak of Corona, were you helped by others from outside of home to obtain necessities, e.g. food, medications or emergency household repairs?*”. Demographics include Age, Female, ADL-limitations, educational attainment, income level, receiving care before the outbreak of Covid-19. It is worth recalling that the S-index has individual variability depending on the time of the interview and the degree of exposure to the lockdown and related measures.

Table 2.1 reports the estimates for equation (1) obtained through different estimation methods: in all cases we show marginal effects of the estimates. More stringent restrictions are positively related to a greater chance of receiving help for necessities. Being a female, the presence of ADL limitations and being older than 75 are also positively associated with help received. It also emerges that more fragile people (who report ADL limitations) are more likely to increase the demand for help due to the restrictions and that individuals who benefitted from regular home care before the pandemic are more likely to have received help.

The second model focuses on the probability of providing help for necessities or personal care, again given the severity of the policy implemented. In this case we are looking at adult children providing care to individuals outside home (parents, children, relatives and friends).

$$\text{ProvidingHelp}_i = \alpha + \beta_1 \text{index\_Stringency}_i + \mathbf{X} \text{Demographics}_i + \theta(\text{Unemployed due to covid})_i + \gamma \text{AreaDummy}_i \quad (2)$$

“Providing help” is a dummy variable taking value 1 if the respondent gave a positive answer to the question: “*Since the outbreak of Corona, did you help others outside your home to obtain necessities,*

*e.g. food, medications or emergency household repairs?”*. In (2) demographics include age, female, educational and income level, whether retired, whether working or unemployed due to the pandemic. Table 2.2 shows the results of the estimates for equation (2): the coefficient of the stringency index is positive and significant, meaning that there is a higher probability of giving help for necessities when lockdown policies are stricter. Females and younger adults are more likely to provide help, the same is true for individuals who have medium-level education or college degree<sup>4</sup>, while the level of income is negatively correlated with the probability of providing help.<sup>5</sup>

An important dimension of the analysis is the relationship with the labor market: working individuals, but also those who became unemployed due to the COVID-19 shock, are more likely to provide care/help for necessities if compared to individuals out of the labor market, even controlling for age. However, the working status is clearly an endogenous variable, as the decision to stop working may be a consequence of caring activities. At this stage we do not provide a causal interpretation of this association between these two variables, that would require a dedicated research agenda, but limit ourselves to highlight the relevance of this characteristic of the respondents.

An additional variable that we constructed is the schools' closure policy, this is measured through an index that takes value 1 if closure of schools was recommended, 2 if it was required at a local/district level, and 3 if schools' closure was compulsory throughout the country. We build a measure with the same logic of the S-index: we sum the days and intensity of the closure and divide by the number of days in the time window between January 1<sup>st</sup> and the day of the interview. Table 2.3 shows results for the same specification when the S-index is replaced by school-closure index: the idea is that when schools are closed older people may have to step in to look after their grandchildren, where possible, hence providing informal help to their children. Results confirm that this measure has contributed to increase the likelihood of older people providing help; the interaction of the schools' closure index and gender confirm that is more likely for women to provide care to someone outside the house. Finally, also in this specification we find that individuals working or who stopped working are more likely to provide help.

An alternative specification for equation (2) looks at providing personal care as dependent variable. In this case, the outcome variable is a dummy variable related to the question: “*Since the outbreak of Corona, did you provide personal care to others outside your home?*”.

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<sup>4</sup> Low educated is defined as having less than high-school, middle educated as having a high-school diploma, and high educated as having at least a college degree.

<sup>5</sup> Low income is defined as below the country-respondent's income 1<sup>st</sup> tercile, middle income as greater than or equal the 1<sup>st</sup> tercile but below the 2<sup>nd</sup> income tercile, finally, high income is equal or above the 2<sup>nd</sup> income tercile.

Table 2.4 reports the results: the evidence is in line with the results in Table 2.2 but the effect of the “working variable” is no longer significant, while individuals who stopped working during the pandemic are more likely to provide help. This is a very interesting finding: while individuals who help with necessities (like doing the shopping) can also work at the same time, those who provide personal care are typically not working.

Table 2.5 repeats the estimates by using the closure of schools as key variable in the regression: school closure per se is no longer significant as the type of help provided in this case is for the older generations.

Future information about the job market conditions during the second (or third) wave of the pandemic will help to disentangle these complex interactions between work (or not working), caring for older parents or caring for children (grandchildren).

An alternative model exploits an additional piece of information collected in the SHARE COVID-19 interview, which elicits information on difficulties in receiving care at home. The outcome variable in this specification is a dummy variable equal to one if the respondent gave a positive answer to the question: “*Since the outbreak of Corona, did you face more difficulties in getting the amount of care that you need?*”<sup>6</sup> The specification we propose is identical to equation (1), however this question is asked only to the subsample of individuals who report they regularly received home care before the outbreak of the pandemic; in this sense, results are not comparable to the previous ones. The idea of this model is to understand if, on the one hand, the average likelihood of receiving help and its mirror image giving informal help have increased, while on the other hand people who are particularly vulnerable suffered a reduction of care. Table 2.6 reports the estimates: also in this case we include an interaction term of the S-Index and limitations in activities of daily living (ADL). Our estimates show a positive and significant effect of the stringency index in each column. Difficulties arise with higher probability for the oldest people in this group, for females and for people with a high number of ADL limitations. Hence a first conclusion is that while on average older people could cope on basic necessities thanks to the help of relatives and friends, the most needy ones suffered difficulties in receiving care.

## CONCLUSION

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<sup>6</sup> This question is asked to the subsample of individuals who responded “Yes” to the question “Did you regularly receive home care before the outbreak of Corona?”.

This paper investigates the effect of the lockdown policies on the help and care received by older individuals or help and care provided during the pandemic outbreak. The severity of the pandemic, along with the unpreparedness of governments to face such an unprecedented emergency, have prompted the application of strict policies with the aim of contrasting the disease. In all countries travelling and commuting were heavily regulated and working arrangements radically changed. Older individuals have been heavily affected both in terms of facing the risk of death, due to the infection itself, and in several other dimensions of life.

Empirical evidence on the effects of the restrictive policies - aimed at stopping the spread of the virus - on care needed and care provided is scarce: previous results based on pandemics taking place in developing countries have shown that the burden of the pandemic usually falls on women and has potential long lasting effect on their labour market outcomes.

In this paper, we take advantage of the SHARE COVID-19 questionnaire, which allows us to observe several outcomes related to the pandemic for individuals aged 50 and above in Europe. The richness of the information about health, socio-economic conditions, receipt and provision of care is also combined with the information collected in previous waves of SHARE, which allows us to model the starting conditions for individuals going through the Corona-virus crisis. Furthermore, we construct a measure of the stringency of lockdown policies experienced by each sample respondent since the outbreak of the pandemic, varying at the individual level. This way we can model the indirect (and unintended) negative effects of lockdown measures on the demand for, and on the provision of, help and care.

We have obtained the “identikit” of older people who were most affected during the pandemic in terms of receiving care or in terms of providing care. Older individuals, low-income individuals and people affected by limitations in everyday life faced a higher probability of receiving help because of the lockdown policies. They were more likely to be women. When we measure caring activities provided by adult children we find that stricter lockdown policies are associated to a higher probability of help or care provided. Women and younger-old people were more likely to provide help/care, but an important difference emerges in terms of labour market conditions: while individuals providing help with necessities tend to be also workers, those who provide personal care are most likely to be out of the labour force or unemployed. This evidence could point to two important negative externalities of the lockdown: women had to increase their time for helping/caring outside the family and might also have decided to leave the job market as a result.

A further important finding of our research is that, for those who were already in need of care, the lockdown policies made it more difficult to receive care, both due to higher financial costs and travelling restrictions. This is of great concern for the wellbeing of older people, because we show

that the respondents who are more likely to suffer difficulties are also the most vulnerable (aged over 75, low income, women and with higher limitations in activities of daily living). Since these individuals are already among the most fragile in society, this evidence should raise concern among policy makers who are called to redesign the welfare system. For example, policy makers should consider that women paid a higher price during the Coronavirus crisis.

Our results suggest that more stringent lockdown policies increase the probability of receiving informal help from outside the home, and this is especially true for older, low- income individuals and for women. This finding matches with what we find in terms of help given: the severity of lockdown measures increases the probability of providing help or care outside the household. Because of the closure of schools taking place in most countries, the probability of older people (older women) helping also increases, possibly explained by looking after grandchildren.

Women are more likely to provide support and there is a dual effect: labour market participation may decrease in the long run, but in the short run, working women are more likely to help outside the household than working men.

The complex patterns of caregiving related to the working status of the individuals suggest potential endogeneity of the decision to work and the caregiving activity, which we partially control thanks to the stringency indexes, but further analysis is needed to confirm our results.

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## FIGURES AND TABLES

**Table 1.1 The SHARE-COVID-19 sample**

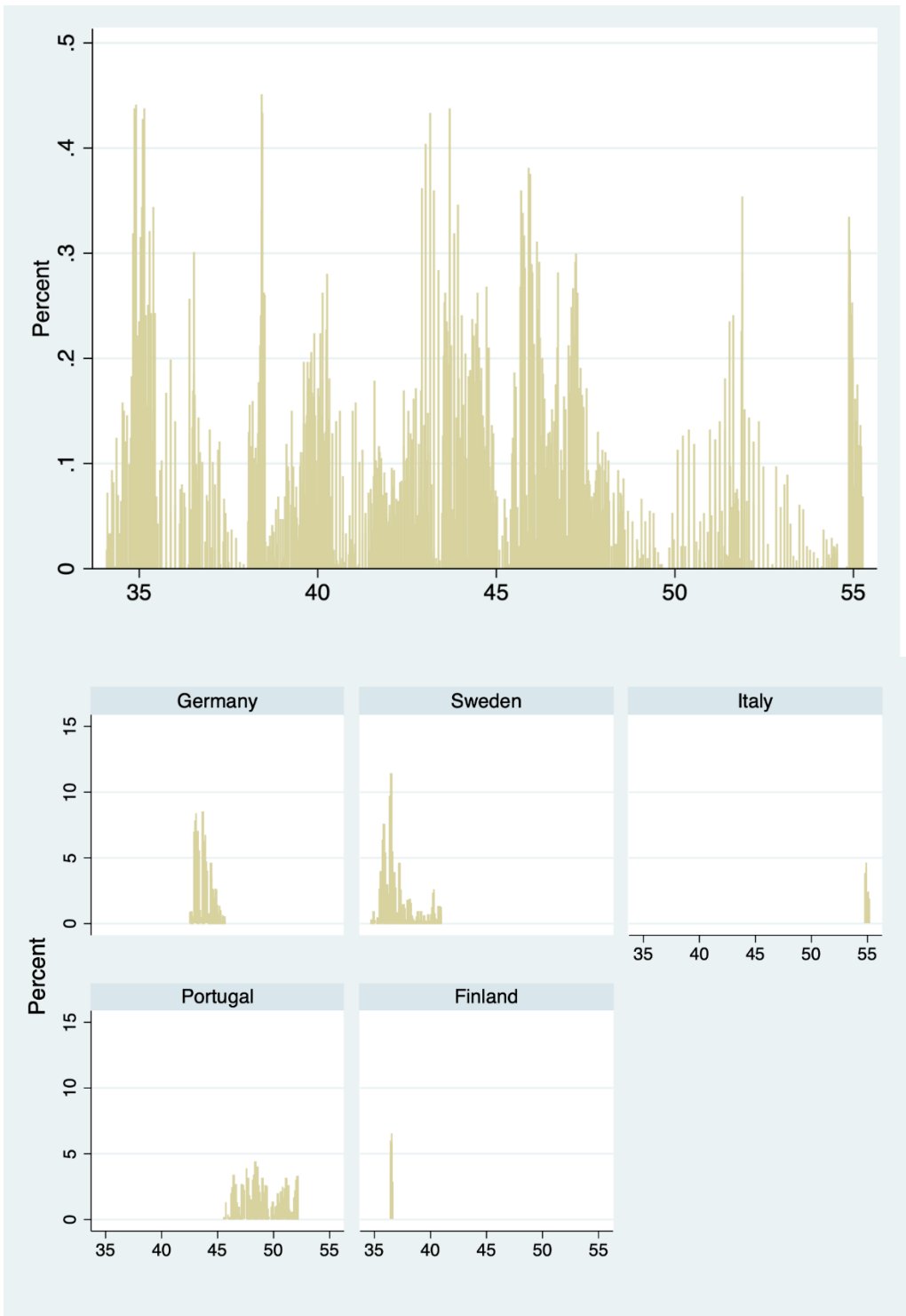
<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std.Dev.</b>
Personal care provided	51160	.033	.179
Help given for necessities	51151	.153	.360
Received help before COVID	51159	0.064	0.245
Difficulties receiving care during COVID	3263	.215	.411
Help received for necessities	51162	.266	.442
Age	51320	69.235	9.437
Female	51320	.579	.494
Low education	50258	.359	.48
Middle education	50258	.407	.491
High education	50258	.234	.423
Adl	50277	.197	.759
Iadl	50277	.401	1.269
DE	51478	.052	.221
SE	51478	.027	.161
NL	51478	.015	.123
ES	51478	.04	.196
IT	51478	.072	.259
FR	51478	.04	.196
DK	51478	.039	.193
BE	51478	.074	.261
GR	51478	.071	.256
LUX	51478	.018	.133
SW	51478	.037	.188
EST	51478	.088	.284
SL	51478	.06	.238
CR	51478	.039	.194
CZ	51478	.051	.22
PO	51478	.022	.146
IS	51478	.028	.166
PL	51478	.057	.232
HU	51478	.019	.138
LIT	51478	.025	.155
BU	51478	.016	.125
CY	51478	.016	.124
FI	51478	.028	.166
LAT	51478	.019	.137
RO	51478	.029	.167
SLK	51478	.018	.134

**Table 1.2. Mean and Standard deviation of the Stringency Index**

<b>Country identifier</b>	<b>Mean S-index</b>	<b>Sd</b>	<b>N obs</b>
Italy	54.991	.107	3711
Israel	52.065	1.35	1456
France	51.799	.15	2060
Portugal	49.136	1.826	1118
Cyprus	48.419	.222	800
Croatia	47.724	.325	2012
Spain	47.272	.47	2055
Romania	46.497	.247	1486
Belgium	46.068	.357	3798
Poland	44.43	.261	2936
Greece	43.908	.456	3636
Germany	43.873	.737	2661
Netherlands	42.679	.26	787
Lithuania	42.621	.434	1268
Hungary	42.326	.661	1003
Slovakia	41.782	.165	940
Denmark	40.794	1.016	2002
Switzerland	40.114	.143	1891
Czech Republic	39.959	.273	2637
Latvia	39.49	.519	980
Slovenia	38.344	.157	3113
Bulgaria	38.309	.051	819
Sweden	37.124	1.532	1365
Finland	36.573	.046	1466
Luxembourg	36.331	.754	932
Estonia	35.012	.294	4546



**Figure 1.1 Distribution of the stringency index in the full sample and in selected countries**

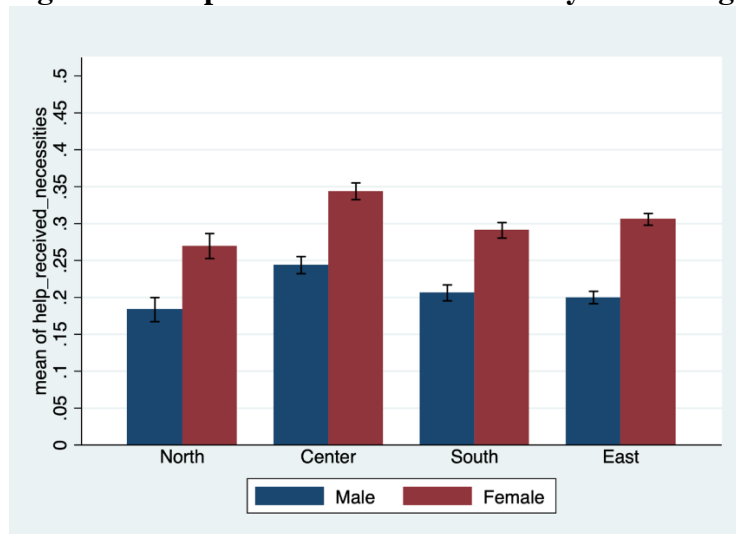


**Table 1.3 Pairwise correlations**

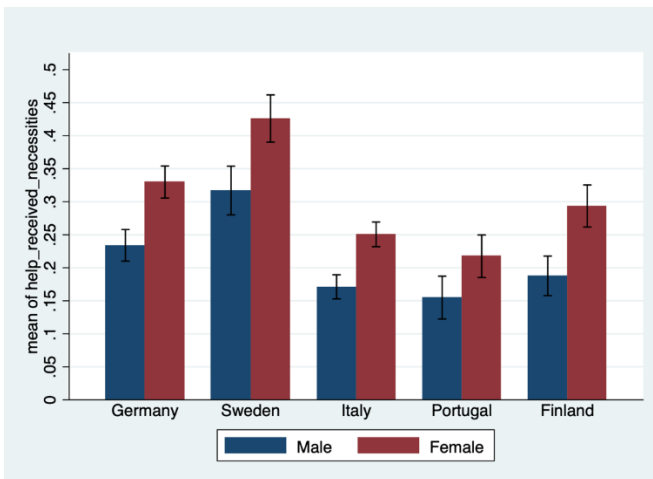
Variables	(1)index string	(2)diff care	(3)personal care provided	(4)help given for necessities	(5)help received for necessities
(1) index stringency	1.000				
(2) Difficulties receiving care	0.067*	1.000			
(3) personal care provided	0.012*	-0.013*	1.000		
(4) help given for needs	0.008	-0.021*	0.277*	1.000	
(5) help received for needs	-0.024*	0.097*	-0.043*	-0.108*	1.000

\* shows significance at the 0.05 level

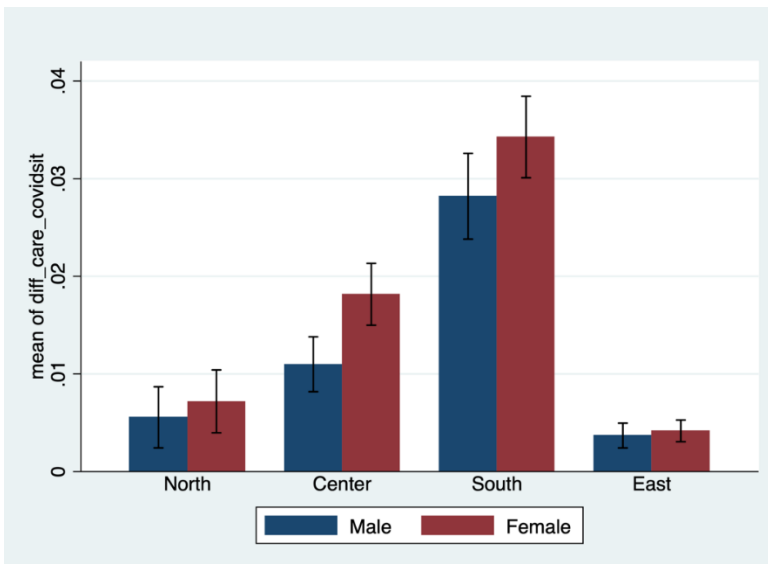
**Figure 1.2 Help received for necessities by area and gender**



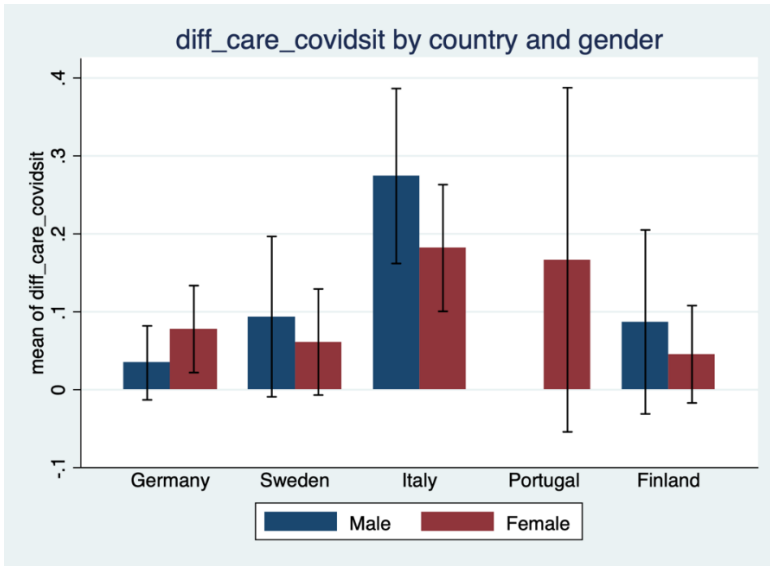
**Figure 1.3 Help received for necessities selected countries and gender**



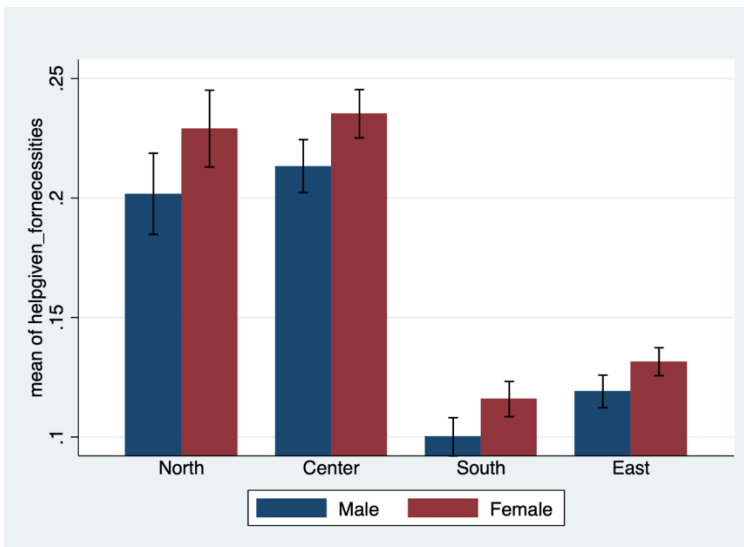
**Figure 1.4 Difficulties in receiving care at home by area and gender**



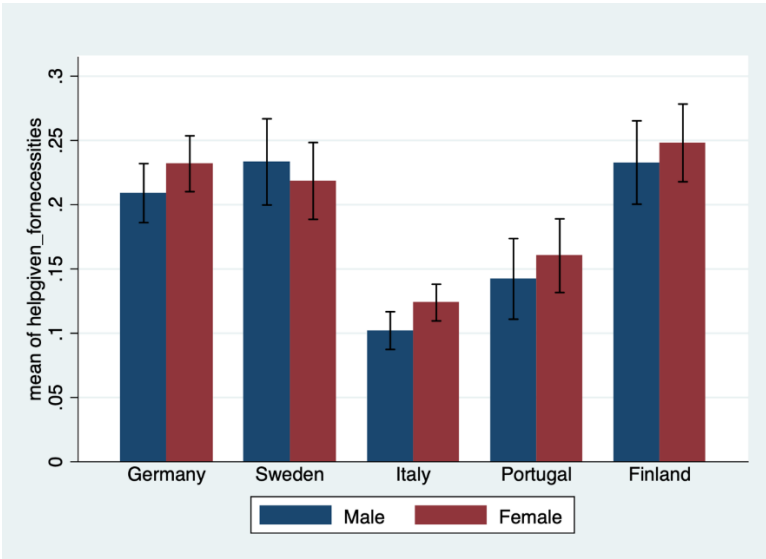
**Figure 1.5 Difficulties in receiving care at home selected countries and gender**



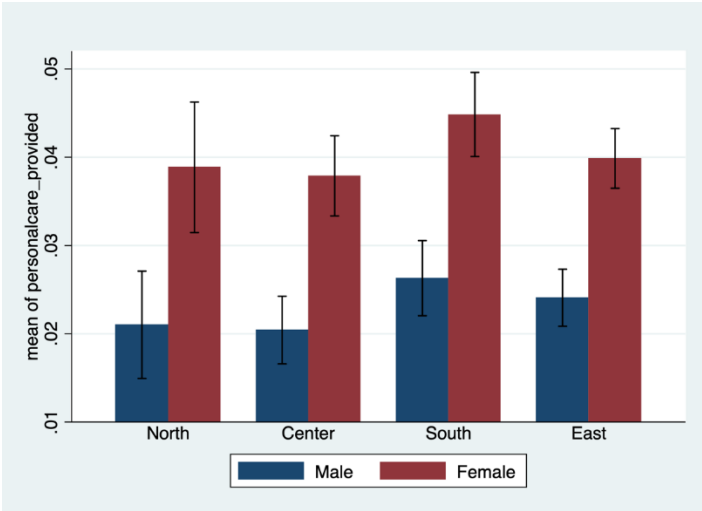
**Figure 1.6 Help for necessities provided by area and gender**



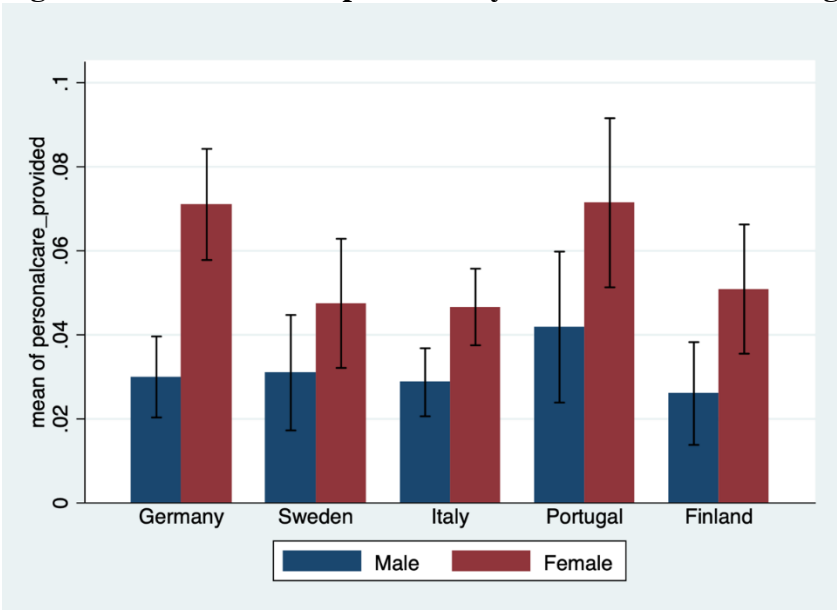
**Figure 1.7 Help for necessities provided selected countries and gender**



**Figures 1.8 Personal care provided by area and gender**



**Figure 1.9 Personal care provided by selected countries and gender**



## Results of the regression

Table 2.1 DEP VAR: Help Received	(1) PROBIT AME	(2) PROBIT AME (interaction stringency*adl)	(3) OLS	(4) OLS (interaction stringency*adl)
stringency index	0.00440*** (0.00111)	0.00441*** (0.00111)	0.00460*** (0.00118)	0.00484*** (0.00118)
stringency index*ADL				-0.00113** (0.000476)
ADL	0.0152*** (0.00243)	0.0162*** (0.00245)	0.0178*** (0.00289)	0.0679*** (0.0212)
age 66-75	0.168*** (0.00440)	0.168*** (0.00440)	0.150*** (0.00400)	0.150*** (0.00400)
age 76-85	0.297*** (0.00468)	0.297*** (0.00468)	0.316*** (0.00551)	0.316*** (0.00551)
age 86+	0.351*** (0.00814)	0.351*** (0.00814)	0.392*** (0.0105)	0.393*** (0.0105)
female	0.0935*** (0.00366)	0.0937*** (0.00366)	0.0933*** (0.00361)	0.0934*** (0.00361)
Middle income	0.0123** (0.00599)	0.0122** (0.00598)	0.00919 (0.00642)	0.00922 (0.00642)
High income	-0.0192*** (0.00595)	-0.0193*** (0.00595)	-0.0200*** (0.00575)	-0.0200*** (0.00575)
Middle educated	-0.0335*** (0.00463)	-0.0335*** (0.00463)	-0.0364*** (0.00472)	-0.0364*** (0.00472)
High educated	-0.0591*** (0.00519)	-0.0590*** (0.00519)	-0.0603*** (0.00522)	-0.0602*** (0.00522)
Regular home care received before outbreak	0.197*** (0.00737)	0.198*** (0.00737)	0.251*** (0.00928)	0.252*** (0.00928)
Constant			-0.0986** (0.0494)	-0.109** (0.0495)
Observations	49,954	49,954	49,954	49,954

NOTE: country dummies are included, Col (1) and (2) are average marginal effects. In col (2) and (4) the stringency index is interacted with ADL. Robust standard errors in parentheses, p-value: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2.2 DEP VAR HELP GIVEN NECESSITIES	(1) PROBIT COEFF	(2) PROBIT AME	(3) PROBIT COEFF (interaction stringency*female)	(4) PROBIT AME (interaction stringency*female)	(5) OLS	(6) OLS (interaction stringency*female)
stringency index	0.0187*** (0.00455)	0.00402*** (0.000980)	0.0179*** (0.00481)	0.00402*** (0.000980)	0.00342*** (0.000933)	0.00337*** (0.000980)
stringency index*female			0.00131 (0.00266)			8.69e-05 (0.000544)
age 66-75	-0.374*** (0.0177)	-0.0804*** (0.00379)	-0.373*** (0.0177)	-0.0804*** (0.00379)	-0.0941*** (0.00436)	-0.0941*** (0.00436)
age 76-85	-0.793*** (0.0246)	-0.171*** (0.00526)	-0.793*** (0.0247)	-0.171*** (0.00526)	-0.157*** (0.00442)	-0.157*** (0.00442)
age 86+	-1.037*** (0.0503)	-0.223*** (0.0108)	-1.037*** (0.0503)	-0.223*** (0.0108)	-0.178*** (0.00527)	-0.178*** (0.00527)
Female	0.0703*** (0.0147)	0.0151*** (0.00316)	0.0130 (0.117)	0.0151*** (0.00315)	0.0171*** (0.00317)	0.0133 (0.0239)
Middle income	-0.0608** (0.0253)	-0.0131** (0.00544)	-0.0609** (0.0253)	-0.0131** (0.00544)	-0.0125*** (0.00475)	-0.0125*** (0.00475)
High income	-0.0343 (0.0235)	-0.00739 (0.00505)	-0.0342 (0.0235)	-0.00738 (0.00505)	-0.00855 (0.00525)	-0.00855 (0.00525)
Middle educated	0.223*** (0.0188)	0.0480*** (0.00405)	0.223*** (0.0188)	0.0480*** (0.00405)	0.0423*** (0.00372)	0.0423*** (0.00372)
High educated	0.309*** (0.0208)	0.0666*** (0.00445)	0.309*** (0.0208)	0.0666*** (0.00445)	0.0669*** (0.00459)	0.0669*** (0.00459)
retired	-0.0178 (0.0177)	-0.00384 (0.00381)	-0.0176 (0.0177)	-0.00378 (0.00381)	-0.00532 (0.00349)	-0.00530 (0.00349)
working	0.121*** (0.0228)	0.0261*** (0.00492)	0.121*** (0.0229)	0.0262*** (0.00492)	0.0400*** (0.00684)	0.0400*** (0.00685)
Unemployed, laid off or business closed due to COVID-19	0.182*** (0.0330)	0.0393*** (0.00710)	0.182*** (0.0330)	0.0393*** (0.00710)	0.0569*** (0.0107)	0.0569*** (0.0107)
Constant	-1.895*** (0.194)		-1.862*** (0.205)		0.0111 (0.0392)	0.0133 (0.0413)
Observations	49,957	49,957	49,957	49,957	49,957	49,957

NOTE: Country dummies are included, Col (2) and (4) report average marginal effects. In Col (3) the stringency index is interacted with female and coefficients are reported, col (4) reports the relative marginal effects. The same model is estimated via OLS in Col.(5) and in Col.(6) with the interaction. Robust standard errors in parentheses, p-value: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



Table 2.3 DEP VAR HELP GIVEN NECESSITIES	(1) PROBIT COEFF	(2) PROBIT AME	(3) PROBIT COEFF (interaction stringency*female)	(4) PROBIT AME (interaction stringency*female)	(7) OLS	(8) OLS (interaction stringency*female)
School closure index	0.544*** (0.114)	0.117*** (0.0246)	0.526*** (0.118)	0.117*** (0.0246)	0.0946*** (0.0217)	0.0942*** (0.0225)
School closure index*female			0.0304 (0.0512)			0.000703 (0.0111)
age 76-85	-0.794*** (0.0246)	-0.171*** (0.00525)	-0.794*** (0.0246)	-0.171*** (0.00525)	-0.157*** (0.00441)	-0.157*** (0.00441)
age 86+	-1.038*** (0.0503)	-0.223*** (0.0108)	-1.038*** (0.0503)	-0.223*** (0.0108)	-0.178*** (0.00527)	-0.178*** (0.00527)
Female	0.0696*** (0.0147)	0.0150*** (0.00315)	0.0247 (0.0771)	0.0150*** (0.00315)	0.0169*** (0.00317)	0.0159 (0.0171)
Middle income	-0.0609** (0.0253)	-0.0131** (0.00544)	-0.0610** (0.0253)	-0.0131** (0.00544)	-0.0125*** (0.00475)	-0.0125*** (0.00475)
High income	-0.0347 (0.0234)	-0.00747 (0.00505)	-0.0347 (0.0234)	-0.00748 (0.00505)	-0.00869* (0.00525)	-0.00869* (0.00525)
Middle educated	0.222*** (0.0188)	0.0477*** (0.00404)	0.222*** (0.0188)	0.0478*** (0.00404)	0.0420*** (0.00371)	0.0420*** (0.00371)
High educated	0.308*** (0.0207)	0.0664*** (0.00445)	0.309*** (0.0207)	0.0665*** (0.00445)	0.0667*** (0.00459)	0.0667*** (0.00459)
retired	-0.0210 (0.0176)	-0.00453 (0.00380)	-0.0209 (0.0176)	-0.00450 (0.00380)	-0.00603* (0.00347)	-0.00602* (0.00347)
working	0.119*** (0.0228)	0.0257*** (0.00492)	0.120*** (0.0228)	0.0258*** (0.00492)	0.0395*** (0.00684)	0.0396*** (0.00684)
Unemployed, laid off or business closed due to COVID-19	0.183*** (0.0330)	0.0395*** (0.00710)	0.184*** (0.0330)	0.0395*** (0.00710)	0.0570*** (0.0107)	0.0570*** (0.0107)
Constant	-1.862*** (0.160)		-1.836*** (0.166)		0.0244 (0.0299)	0.0250 (0.0312)
Observations	49,957	49,957	49,957	49,957	49,957	49,957

NOTE: Country dummies are included, Col (2) and (4) report average marginal effects. In Col (3) the stringency index is interacted with female and coefficients are reported, col (4) reports the relative marginal effects. The same model is estimated via OLS in Col.(5) and in Col.(6) with the interaction. Robust standard errors in parentheses, p-value: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2.4 DEP VAR PERSONAL CARE PROVIDED	(1) PROBIT COEFF	(2) PROBIT AME	(3) PROBIT COEFF (interaction stringency*female)	(4) PROBIT AME (interaction stringency*female)	(5) OLS	(6) OLS (interaction stringency*female)
stringency index	-0.00546 (0.00766)	-0.000377 (0.000529)	-0.00628 (0.00812)	-0.000377 (0.000529)	-0.000440 (0.000390)	-0.000553 (0.000402)
stringency index*female			0.00119 (0.00456)			0.000198 (0.000261)
age 66-75	-0.353*** (0.0285)	-0.0244*** (0.00201)	-0.353*** (0.0285)	-0.0244*** (0.00201)	-0.0295*** (0.00224)	-0.0295*** (0.00224)
age 76-85	-0.688*** (0.0434)	-0.0475*** (0.00310)	-0.688*** (0.0434)	-0.0475*** (0.00310)	-0.0417*** (0.00222)	-0.0416*** (0.00222)
age 86+	-0.873*** (0.0969)	-0.0603*** (0.00676)	-0.873*** (0.0969)	-0.0603*** (0.00676)	-0.0444*** (0.00249)	-0.0444*** (0.00249)
Female	0.252*** (0.0244)	0.0174*** (0.00170)	0.200 (0.202)	0.0174*** (0.00170)	0.0174*** (0.00156)	0.00874 (0.0114)
Middle income	-0.0669 (0.0419)	-0.00462 (0.00290)	-0.0670 (0.0419)	-0.00463 (0.00290)	-0.00374 (0.00229)	-0.00374 (0.00229)
High income	-0.0782** (0.0389)	-0.00540** (0.00269)	-0.0782** (0.0389)	-0.00540** (0.00269)	-0.00511** (0.00249)	-0.00510** (0.00249)
Middle educated	0.177*** (0.0300)	0.0122*** (0.00208)	0.177*** (0.0300)	0.0122*** (0.00208)	0.0121*** (0.00186)	0.0121*** (0.00186)
High educated	0.178*** (0.0344)	0.0123*** (0.00239)	0.178*** (0.0344)	0.0123*** (0.00239)	0.0117*** (0.00222)	0.0117*** (0.00222)
retired	-0.0320 (0.0291)	-0.00221 (0.00201)	-0.0318 (0.0291)	-0.00219 (0.00201)	-0.00186 (0.00173)	-0.00181 (0.00173)
working	0.0456 (0.0341)	0.00315 (0.00235)	0.0458 (0.0341)	0.00316 (0.00235)	0.00690* (0.00370)	0.00694* (0.00370)
Unemployed, laid off or business closed due to COVID- 19	0.114** (0.0474)	0.00786** (0.00327)	0.114** (0.0474)	0.00787** (0.00327)	0.0141** (0.00590)	0.0141** (0.00590)
Constant	-1.845*** (0.322)		-1.809*** (0.344)		0.0443*** (0.0168)	0.0492*** (0.0173)
Observations	49,967	49,967	49,967	49,967	49,967	49,967

NOTE: Country dummies are included, Col (2) and (4) report average marginal effects. In Col (3) the stringency index is interacted with female and coefficients are reported, col (4) reports the relative marginal effects. The same model is estimated via OLS in Col.(5) and in Col.(6) with the interaction. Robust standard errors in parentheses, p-value: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2.5 DEP VAR PERSONAL CARE PROVIDED	(1) PROBIT COEFF	(2) PROBIT AME	(3) PROBIT COEFF (interaction stringency*female)	(4) PROBIT AME (interaction stringency*female)	(5) OLS	(6) OLS (interaction stringency*female)
School closure index	0.180 (0.172)	0.0124 (0.0119)	0.149 (0.180)	0.0125 (0.0119)	0.00780 (0.00935)	0.000952 (0.00974)
School closure index*female			0.0471 (0.0841)			0.0121** (0.00549)
age 66-75	-0.353*** (0.0285)	-0.0244*** (0.00200)	-0.353*** (0.0285)	-0.0244*** (0.00200)	-0.0294*** (0.00224)	-0.0294*** (0.00223)
age 76-85	-0.686*** (0.0434)	-0.0474*** (0.00310)	-0.686*** (0.0434)	-0.0474*** (0.00310)	-0.0415*** (0.00222)	-0.0415*** (0.00222)
age 86+	-0.871*** (0.0969)	-0.0601*** (0.00676)	-0.870*** (0.0969)	-0.0601*** (0.00676)	-0.0442*** (0.00248)	-0.0441*** (0.00248)
Female	0.253*** (0.0244)	0.0175*** (0.00170)	0.181 (0.131)	0.0175*** (0.00170)	0.0174*** (0.00156)	-0.000569 (0.00808)
Middle income	-0.0660 (0.0420)	-0.00456 (0.00290)	-0.0660 (0.0420)	-0.00456 (0.00290)	-0.00367 (0.00229)	-0.00368 (0.00229)
High income	-0.0787** (0.0389)	-0.00543** (0.00269)	-0.0787** (0.0389)	-0.00544** (0.00269)	-0.00511** (0.00249)	-0.00511** (0.00249)
Middle educated	0.180*** (0.0300)	0.0125*** (0.00208)	0.181*** (0.0300)	0.0125*** (0.00208)	0.0124*** (0.00186)	0.0125*** (0.00186)
High educated	0.181*** (0.0345)	0.0125*** (0.00239)	0.182*** (0.0345)	0.0125*** (0.00239)	0.0119*** (0.00222)	0.0119*** (0.00222)
retired	-0.0289 (0.0290)	-0.00200 (0.00200)	-0.0287 (0.0290)	-0.00198 (0.00200)	-0.00165 (0.00172)	-0.00156 (0.00172)
working	0.0474 (0.0340)	0.00327 (0.00235)	0.0478 (0.0340)	0.00330 (0.00235)	0.00703* (0.00370)	0.00714* (0.00370)
Unemployed, laid off or business closed due to COVID-19	0.115** (0.0474)	0.00796** (0.00327)	0.115** (0.0474)	0.00796** (0.00327)	0.0142** (0.00590)	0.0142** (0.00590)
Constant	-2.323*** (0.239)		-2.275*** (0.251)		0.0150 (0.0129)	0.0252* (0.0135)
Observations	49,967	49,967	49,967	49,967	49,967	49,967

NOTE: Country dummies are included, Col (2) and (4) report average marginal effects. In Col (3) the stringency index is interacted with female and coefficients are reported, col (4) reports the relative marginal effects. The same model is estimated via OLS in Col.(5) and in Col.(6) with the interaction. Robust standard errors in parentheses, p-value: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2.6 DEP VAR: DIFFICULTIES IN RECEIVING CARE	(1) PROBIT AME	(2) PROBIT AME (interaction stringency*adl)	(3) OLS	(4) OLS (interaction stringency*adl)
stringency index	0.0106** (0.00538)	0.0120** (0.00536)	0.00933* (0.00516)	0.0119** (0.00520)
stringency index*ADL				-0.0018** (0.000799)
ADL	0.00286 (0.00462)	0.00206 (0.00461)	0.00141 (0.00444)	0.0864** (0.0359)
age 66-75	-0.0369 (0.0234)	-0.0368 (0.0234)	-0.0413 (0.0273)	-0.0414 (0.0273)
age 76-85	-0.091*** (0.0224)	-0.090*** (0.0223)	-0.102*** (0.0254)	-0.101*** (0.0253)
age 86+	-0.130*** (0.0246)	-0.127*** (0.0245)	-0.137*** (0.0268)	-0.134*** (0.0268)
female	0.00136 (0.0141)	0.00181 (0.0141)	0.00277 (0.0145)	0.00327 (0.0145)
Middle income	0.00735 (0.0206)	0.00800 (0.0206)	0.00728 (0.0213)	0.00763 (0.0214)
High income	0.0338 (0.0255)	0.0339 (0.0255)	0.0404 (0.0278)	0.0400 (0.0279)
Middle educated	0.0114 (0.0172)	0.0115 (0.0173)	0.0124 (0.0169)	0.0124 (0.0169)
High educated	0.0551*** (0.0201)	0.0544*** (0.0200)	0.0598*** (0.0206)	0.0590*** (0.0205)
Constant			-0.192 (0.218)	-0.310 (0.219)
Observations	3,232	3,232	3,232	3,232
R-squared			0.122	0.123

NOTE: Country dummies are included, Col (1) and (2) are average marginal effects. In col (2) and (4) the stringency index is interacted with ADL. Robust standard errors in parentheses, p-value: \*\*\* p<0.01, \*\* p<0.0