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The indirect costs of long-term care

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THE INDIRECT COSTS OF LONG-TERM CARE

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Abstract

Informal care remains the most important source of care for dependent older people, although there are strong country differences across Europe. Most informal carers are either of working age (mostly daughters or daughters-in-law) or older people themselves providing care to their dependent spouses. From the public budget perspective, informal care is often seen as a cost-effective way of providing care. This vision, however, fails to acknowledge the indirect costs of informal care, namely forgone employment or health for informal carers.

The research note presented here provides an overview of existing research into the effects of caring on the employment and health of carers, and into the benefits already available to carers in Europe. These include care services, cash benefits and leave for carers.

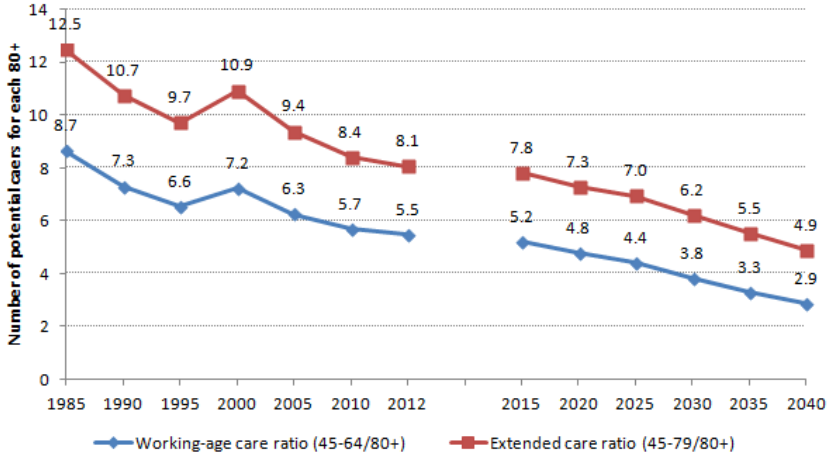
Based on data from the European Quality of Life Survey (EQLS) and the Survey of Health, Ageing and Retirement in Europe (SHARE), a profile of current working-age and older informal carers is provided, specifically their gender and age distribution. Using bivariate and multivariate analysis, the impact of caring on employment (using EQLS) and health (using SHARE) is analysed and policy implications are discussed.

The research note also draws on multiple studies and data sources to provide a profile of migrant carers across Europe, with a special emphasis on those providing care at home and/or employed by private households.

Changing demographics and care needs

Despite considerable variation between countries in the EU, national and comparative studies consistently find that informal care is the primary form of care provided to persons requiring long-term care. However, gains in life expectancy have resulted in an increasingly high share of people surviving well into their eighties, which means potentially greater numbers of people in need of care. At the same time, however, diminishing fertility rates have resulted in a reduction – in relative terms – in the number of potential carers on whom older people can rely (working-age care ratio), even considering the potential care provided by spouses (extended care ratio) (Figure 1).

Figure 1: Evolution of the working-age and extended care ratios for the EU27

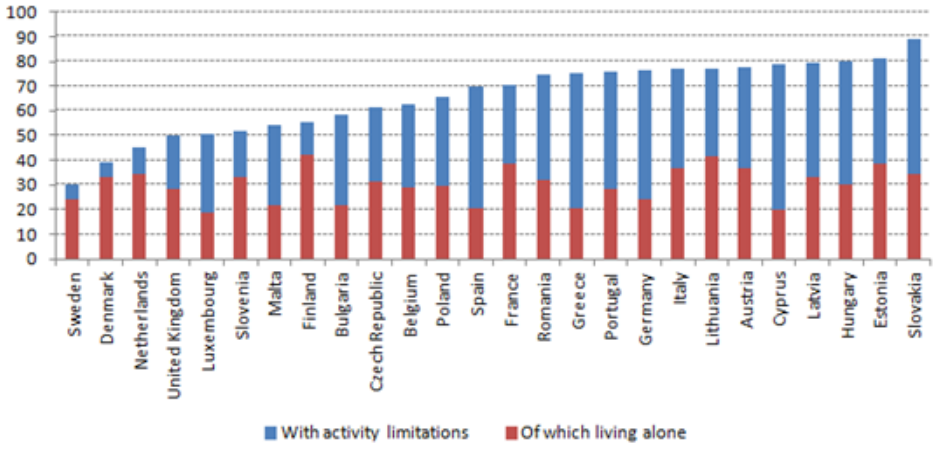


Note: Convergence scenario used for demographic projections.

Source: Eurostat, Demographic Statistics and EUROPOP2010 (accessed on 12.08.2013).

Despite the positive development in longevity, many of those aged 80 and older are indeed in poor health and in need of care. Moreover, societal changes and different life-expectancy gains by gender (i.e. higher for women than for men) mean that many of those in poor health are living alone (Figure 2). In the not-so-distant future, not only will older people have fewer children on whom they can rely for informal care, but also they may not be able to rely on their spouses for care.

Figure 2: Health and living arrangements of 80+ age group in European countries (% of total)



Notes: Ireland not available. Limitations refer to people with limitations and severe limitations.

Source: Eurostat and own calculations based on EU-SILC, 2011.

These demographic developments, together with constrained spending on formal long-term care services, have led to a "rediscovery" of informal care and of the role and need for informal carers (Naiditch et al., 2013). A number of measures have been put in place that aim to support informal carers, most notably care allowances (Lundsgaard, 2005). What this newfound emphasis on informal care may risk overlooking, however, is the strain that caring places on carers. Carers of working age may have to forgo employment because of difficulties in reconciling care and employment, and women may find it particularly difficult to reconcile care and work, which could hinder further gains in the employment rates of women. Retired carers looking after elderly dependent spouses could find that the strain leads to a deterioration in their own health and to reduced wellbeing. Both good health sacrificed and employment forgone could be considered indirect costs of long-term care.

Concomitantly, in several EU countries families have "outsourced" care for dependent older relatives to migrant carers as a way of coping with caring and employment responsibilities (Simonazzi, 2009). Fuelled by care allowances, migrant carers now play an important role in the provision of care in many European countries, helping older people to gain access to care while remaining in their own homes (Rodrigues et al., 2012).

This research note aims to i) provide a description of informal carers in Europe, ii) discuss the potential impact of caring on employment (for informal carers of working age) and on health (especially for older informal carers), and iii) present information on the importance of migrant carers in the provision of care at home. The analysis focuses on care provided at home and is structured as follows. The first section comprises a short review of the impact of caring on the employment and health of carers. This is followed by an overview of the provision of formal care services and cash benefits in those European countries for which information is available. The third section details the profile of informal caregivers and the impact of caring on employment and health. The next section discusses the importance of migrant carers in certain countries, and the final section provides some general conclusions and policy discussion.

Evidence of the impact of caring on employment and health

Employment

Earlier studies into the effects of caring on employment found that work is consistently reduced when somebody is involved in caring (Ettner, 1996; Carmichael and Charles, 1998). The results, however, showed that the impact on work was substantially greater for carers providing co-residential care, and they uncovered a strong gender dimension: significant effects were only found among female carers. Both results were supported by later studies (Carmichael and Charles, 2003; Heitmueller, 2007; Heitmueller and Michaud, 2006; Viitanen, 2010; Latif, 2013), suggesting that women find it particularly difficult to reconcile care with paid employment.

Carmichael and Charles (1998) demonstrated that intensity of care is an important variable in estimating the impact of care not only on participation, but also on wages earned. They found that above a threshold of 20 hours of care provided per week, informal carers are not only less likely to participate in the labour market, but their hourly earnings are also lower than those of non-carers. Interestingly, below the 20 hour/week threshold, carers were more likely than non-carers to participate, but worked fewer hours per week than non-carers (Carmichael and Charles, 1998). These findings are consistent with several subsequent studies that investigated the impact of care on employment participation (Johnson and Lo Sasso, 2000; Carmichael et al., 2010; Fevang et al., 2008; Heitmueller and Inglis, 2004) and on earnings (Bolin et al., 2008; Carmichael et al., 2010; Heitmueller and Inglis, 2004).

Two large multi-country studies conducted in recent years added an important policy dimension to the discussion of the impact of informal care on the labour supply of the carer. The first study[1] (Colombo et al., 2011) confirmed previous findings that women constitute the majority of the informal care labour force; that the impact of care on labour force participation is significant only when individuals provide a high intensity of care (20 hours/week or more) and only in the case of co-residential care. Perhaps of greatest policy relevance is the variation in the impact of informal care on employment observed across countries and regions within Europe. In Northern European countries, provision of informal care is not associated with any significant reduction in employment, nor with reduced working hours. By contrast, Southern European countries exhibit a substantial decrease in employment among informal carers, as well as reduced working hours. Reduced working hours for informal carers were also observed in Central Europe, the UK, US and Australia, to differing degrees (ibid.).

This variation suggests that in countries with well-established and highly utilised formal care services (such as exist in most Nordic countries), informal carers are better able to balance their care responsibilities with employment, and also that higher labour force attachment in Northern European countries, particularly among women, may influence the decision to care (Viitanen, 2010). Carried out as part of the European Commission's EUROFAMCARE project (2006), the findings of the second multi-country study support this hypothesis. Using an independent questionnaire, working and non-working informal carers in Germany, Greece, Italy, Poland, Sweden and the UK were asked about limitations on their working life/career due to their caring responsibilities. The highest percentage of persons reporting limitations was observed in Greece, and the lowest in Sweden (EUROFAMCARE, 2006).

Health

Echoing the findings in the employment section, the negative impact of caregiving on health is only significant for certain groups of caregivers, including elderly spousal carers (Schulz et al., 2001), co-residential carers (Schulz and Beach, 1999), and those who provide care above a certain quantity (time) and intensity threshold (Schulz and Sherwood, 2008; Colombo et al., 2011). Using panel data from the US, Coe and Van Houtven (2009) determined that carers have more depressive symptoms than non-carers; they also have a higher prevalence of heart conditions, but a lower prevalence of high blood pressure. This same study also found that the duration of care provision has a significant effect specifically on the physical health of the caregiver: there are marked differences in health between those just starting to provide care and those who have continued to care for extended periods of time (Coe and Van Houtven, 2009).

The EUROFAMCARE survey (2006) and the OECD study (Colombo et al., 2011) also revealed cross-country differences in the mental health consequences for the informal caregiver but (unlike with the effects on employment) there is no clear geographical pattern to the variation. Overall, the prevalence of mental health problems among carers is 20% higher than among non-carers (Colombo et al., 2011). The study also demonstrates that high-intensity caregiving (20 hours/week or more) is associated, on average, with a 20% higher prevalence of mental health problems. EUROFAMCARE (2006) reported on carers' health status, as well as on their quality of life (using the WHO-5 Wellbeing Index). There was considerable variation between countries: the "healthiest" carers were found in the UK, Sweden and Greece, while the largest percentage of those reporting poor health was to be found in Poland and Italy. Sweden had the highest proportion of carers who reported high quality of life, while Greece and Italy had the lowest (EUROFAMCARE, 2006). These findings were confirmed by later studies using different datasets (Rodrigues et al., 2012: 67).

[1] The study is based on data from the Survey on Health, Ageing and Retirement in Europe (SHARE).

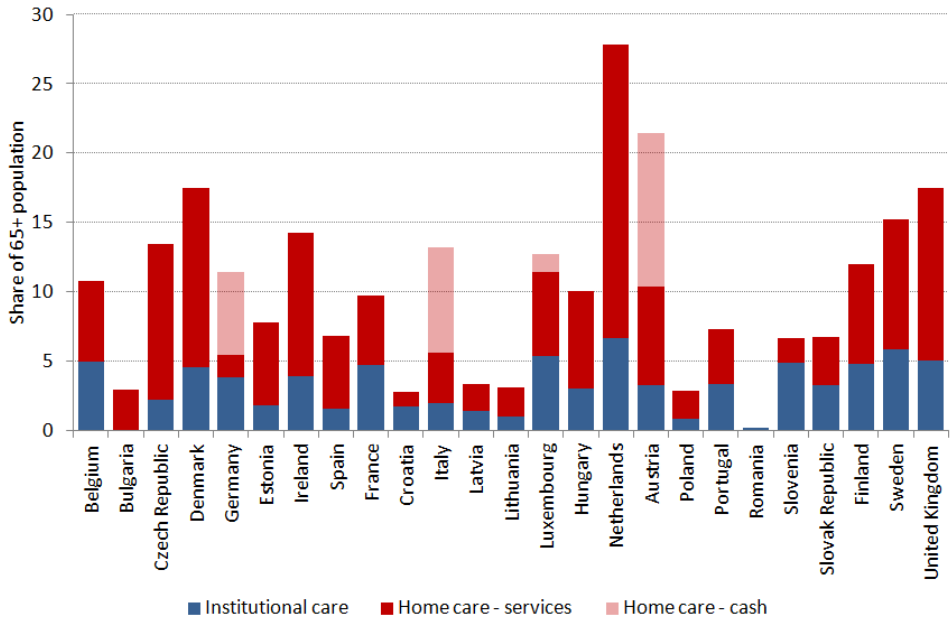
It is important to note, however, that previous mental health problems can play an important role in a carer's current state of mental health. Also, further research is needed to distinguish between the health effects of providing care, and the effects on health simply of having a family member or friend who is in poor physical and/or mental health and who may be suffering (Schulz and Sherwood, 2008). As the results of the EUROFAMCARE (2006) survey reveal, across all six countries surveyed, the primary reason given for caring was the emotional bond (i.e. love/affection) between carer and care recipient.

Overall, there is evidence that caring is correlated with weaker labour market attachment (i.e. lower participation and hours of work). This correlation is particularly strong for women and when caring becomes closer to a full-time activity, e.g. when caring for longer hours or sharing the household with the older relative. Findings suggest that public policy could have an impact on this correlation. More intensive care provided by co-resident carers appears also to be associated with worse health outcomes. While the impact of public policy seems less evident on health, the provision of formal care services and cash benefits does appear to be a good starting point for analysing the impact of caring on informal carers.

Benefits for dependent older people and their carers

The availability of care services across Europe is still markedly heterogeneous, with differences reflecting divergent views of the role of the state, the market and the family, rather than just differences in the relative number of older people (Rodrigues and Nies, 2013). It is not only the overall share of older people receiving care benefits that reflects these divergent policy choices, but also the importance of cash benefits (Figure 3). Albeit at different levels, Italy, Germany and Austria all stand as examples of countries that provide support to a wide section of their older population – though through cash rather than services.

Figure 3: Share of 65+ receiving care (cash or services), most recent year (%)

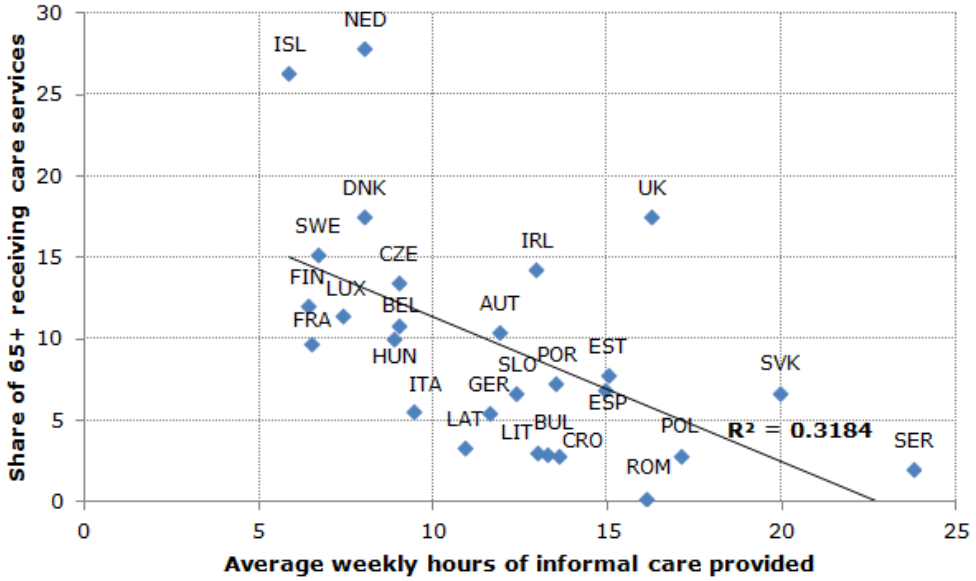


Notes: Data for Austria, Belgium and France (home care only) are for those aged 60 and above. Data for cash benefits in Italy are a conservative estimate of beneficiaries of Indennitá di Accompagnamento. Data for cash benefits in Austria and Germany are an estimate. Data for the United Kingdom are only for England, and possible double-counting in home care users cannot be excluded.

Source: Adapted from Rodrigues et al. (2012: 84); OECD Health Database.

Nordic countries privilege the provision of care services, going somewhat further in acknowledging care as a responsibility of the state. Countries such as Italy, Germany and Austria, by contrast, provide benefits that aim to support the caregiving role of the family. In these countries, the most important form of public support for long-term care comes through cash benefits, which allow members of the family to be compensated for providing care. Informal care can thus become a (paid) full-time occupation, albeit one that is outside the formal labour market. Finally, the lack of significant public resources devoted to long-term care means that, in a number of countries, the family is by default the main care provider (Saraceno, 2010). Informal carers may thus have to shoulder greater responsibility for providing care, while receiving very limited support. At least at an aggregated level there indeed does seem to be a negative relationship between the average hours of informal care provided and the availability of care services (Figure 4).

Figure 4: Relation between available care services and informal care provided (hours)

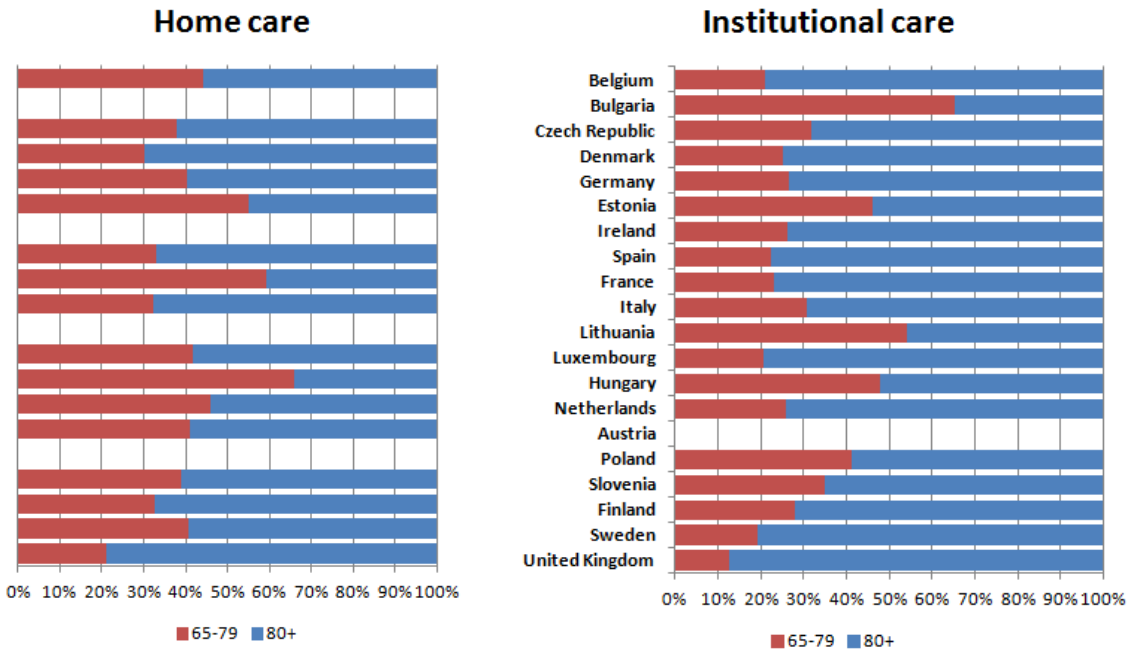


Notes: Data for Austria, Belgium and France (home care only) are for 60+. Data for care services in Austria and Germany are an estimate. Data for the United Kingdom are only for England for care services, and possible double-counting in home care users cannot be excluded.
Care services include home and institutional care.

Source: Own calculations using EQLS 2011 and data from Rodrigues et al. (2012) and OECD Health Database.

Older age groups make up the majority of care service users (i.e. those aged 80+) (Figure 5). Perhaps more salient from a policy point of view, however, is the fact that in the majority of countries for which data are available more people aged 80+ receive care services in their own homes than in institutions (Figure 6). This can be interpreted as a success for "ageing in place" policies (OECD, 2005), but it also means that informal carers are looking after an increasingly older and potentially frail population. This, in turn, raises the question of what policies are in place to support carers.

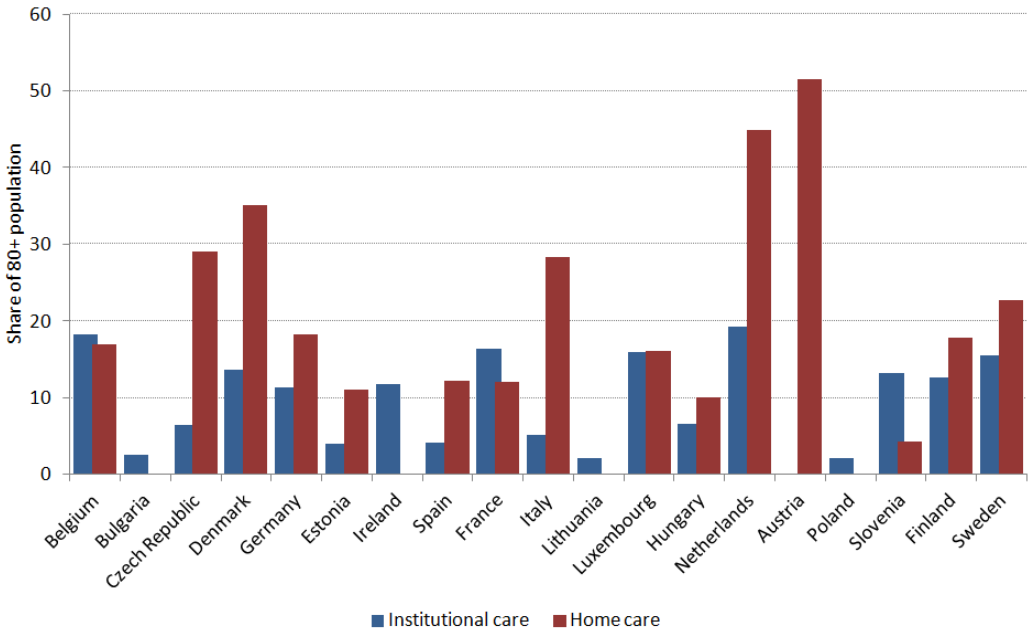
Figure 5: Age distribution of users of care services



Notes: Data for United Kingdom are only for England.
Data for home care are for people aged 65–74 and 75+ and for methodological reasons they are not comparable with Figure 4. Age groups for institutional care in Belgium and France refer to those aged 60–79. Data for home care in Italy refer to Indennitá di Accompagnamento.

Source: Adapted from Rodrigues et al. (2012: 90); OECD Health Database and NASCIS.

Figure 6: Share of people aged 80+ receiving care, by care setting



Notes: Data for Belgium (institutional care) are for those aged 60+. Data for home care in Italy are a conservative estimate of the beneficiaries of Indennitá di Accompagnamento.

Source: Adapted from Rodrigues et al. (2012: 91); OECD Health Database.

Cash for care

Cash benefits have been growing in importance as a policy to support carers. They may take the form either of cash provided directly to carers (care allowances, see Table 1) or of cash provided to users so that they can compensate informal carers (unregulated cash benefits). Cash for care is nonetheless a policy measure that has pros and cons (Hoffmann et al., 2013).

Table 1: Examples of care allowances in Europe

Country	Name	Means tested	Other benefits	Other limitations
Ireland	Carer's allowance	Yes		Full-time care required: cannot be combined with more than 10 hours employment/week
Luxembourg	Carer's allowance	No	Pension credits (based on minimum wage) Paid social contributions Respite care	Carer below 65; minimum of 50 hours a month of care needed; no cash benefit
Hungary	Nursing fee	No	Pension credits	Cannot be combined with other benefits, except old-age pension
Slovenia	Home care assistance or family attendant	No	Pension credits Unemployment benefit Parental insurance Paid social contributions	Carer must be unemployed or working part-time; high dependency level of person in need of care
Slovak Republic	Care allowance	Yes		High dependency level of person in need of care; may be combined with paid work up to two times the national minimum wage; carers may only be of foreign origin if they share the dependant's household
Finland (1)	Care allowance or informal care allowance/ support for informal care	No	Leave and support services for relatives; respite care (two days per month); pension credits (limited) and accident insurance	
Sweden (2)	Carer's salary	No	Full social protection Contract	Carer below 65; in practice it is awarded only in exceptional circumstances
United Kingdom	Attendance allowance	Yes	Pension credits Supplement benefit for children Increased social benefits	Minimum threshold of care given is 35 hours weekly; conditional on (high) dependency level of person receiving care; means-tested benefits received by the one in need of care may be reduced; carer cannot be in full-time education (more than 21 hours/ week of education)

Notes:
(1) May be accumulated with paid work.
(2) In these schemes the carer is actually employed by the municipality. Denmark has a similar scheme.

Source: Adapted from Huber et al. (2009: Table 5.3); Colombo et al. (2011).

One of the advantages of cash for care is the additional choice it offers users and families, allowing them, for example, to choose who provides the care. It is also seen

as a potentially cost-friendly option, paying carers relatively small amounts of cash rather than providing more expensive care services. Huber et al. (2009: 115ff) show that care allowances and unregulated cash benefits that can be passed on to carers do not amount to more than a third of the average wage in most countries. Despite their relatively low value, cash benefits can still be instrumental in allowing older people to remain in their own homes. Finally, care allowances may also have a strong symbolic value, as they recognise the role played by informal carers and (at least in some cases) also entitle carers to pension rights and sickness insurance (Table 1).

Cash benefits, however, may also serve to entrench traditional gender roles in caring (Ungerson and Yeandle, 2007). While unregulated cash benefits widen the potential scope for choosing a carer, it has also been alleged that they fuel care provided by undocumented migrant carers. Care allowances also risk creating disincentives to take up formal employment, not least because the rules accompanying them usually limit combination with formal paid employment (Table 1). Finally, when not supplemented with services to the user and/or the carer (e.g. respite care), cash benefits may lead to a further overburdening of carers.

Informal carers who provide intensive caring may find that their tasks resemble a full-time occupation and are both physically and psychologically demanding. Furthermore, caring is likely to take place inside the home, which means that carers risk being isolated from their social environment (Hoffmann et al., 2013). Respite care, or a combination of care services and informal care, is thus equally crucial in supporting carers, and this is likely to become even more important as carers get older. A study using UK census data from 2001 found that a significant number of carers were well into their eighties, and at least one third of those providing more than 50 hours of care per week described themselves as unhealthy (Doran et al., 2003). Despite this, existing figures point towards the limited availability of respite services – even in countries where other care services are available (Hoffmann et al., 2013).

Leave for carers

As with childcare leave, so leave for people caring for older relatives can play an important part in enabling informal carers of working age to balance caregiving and employment (Colombo et al., 2011). Of the EU28 countries, 22 offer employees some sort of statutory care leave to look after dependent older relatives (Table 2).[2] However, most leave for carers is of limited duration and is often unpaid. Countries like France, Luxembourg and the Netherlands incentivise carers to reduce their working time rather than leave employment. In the Netherlands, part of the income forgone by reducing working hours may be paid by the state.

[2] Other EU countries, such as Denmark or Latvia, regulate leave for carers under collective or individual agreements.

Table 2: Leave for carers in EU countries

Country	Short-term leave for carers	Long-term leave for carers
Belgium	Up to 45 days, unpaid	Up to 3 months, paid
Czech Republic	Up to 9 days, paid	-
Germany	Up to 10 days, unpaid	Up to 2 years, paid
Estonia	Up to 7 days, paid	-
Ireland	Up to 5 days, paid	Up to 2 years, paid
Greece	Up to 22 days, unpaid	-
Spain	Up to 3 days, paid	Up to 3 years, unpaid
France	Up to 21 days paid (or 90 unpaid)	Up to 6 months, unpaid
Croatia	Up to 15 days, paid (1)	-
Italy	Up to 36 days, paid	Up to 2 years, paid
Cyprus	Up to 7 days, unpaid	-
Luxembourg	Up to 5 days, unpaid	Up to 6 months, unpaid
Hungary	-	Up to 2 years, unpaid
Netherlands	Up to 10 days, paid	Up to 1.5 months, unpaid
Austria	Up to 10 days, paid	Up to 6 months, unpaid
Poland	-	Up to 2 months, paid
Portugal	Up to 15 days, unpaid	-
Romania	Up to 15 days, unpaid	-
Slovenia	Up to 30 days, paid	-
Finland	-	Up to 1 year, paid
Sweden	-	Up to 3 months, paid
United Kingdom	Up to 2 days, unpaid	-

Notes: (1) If the carer is a co-resident spouse, otherwise leave is limited to 7 days, paid.

Source: Adapted from Rodrigues et al. (2012: 70ff).

Nonetheless, statutory leave for carers of dependent older people, as well as flexible work arrangements, are much less widely available than similar leave to care for children. This is also true of employers who offer leave for carers (Colombo et al., 2011; Moss, 2011). According to the OECD study (Colombo et al., 2011), the loss of income associated with taking carers' leave (e.g. in the case of unpaid leave) and the fear that claiming it will have a damaging impact on the carer's career prospects may severely limit take-up.

Impact of caring on employment and health – empirical evidence

Impact of caring on employment

The data for our empirical analysis of the impact of caring on the labour market participation of informal carers come from the 2011–2012 wave of the European Quality of Life Survey (EQLS). Starting with a descriptive analysis of the caring versus non-caring sample, we look at employment status for both groups, disaggregating first by age group and then by gender. Given the focus of this section on the impact of caring on employment, analysis is limited to individuals of working age (18–64). The descriptive analysis is followed by multivariate analysis, in which we explore the effect of providing care on employment, accounting for differences in gender, age, education, health, marital status and property. We also then take account of endogeneity by including household size in the analysis.

Box 1: EQLS data and methodology

Overview: The EQLS questionnaire captures a range of objective and subjective indicators of quality of life across a variety of dimensions, including employment and welfare, family life, work-life balance, social connectedness, and informal and long-term care.

Survey waves and sample size: The survey is carried out by the European Foundation for the Improvement of Living and Working Conditions (Eurofound), and to date there have been three waves: in 2003, 2007 and 2011–2012. Only data from the third wave (2011–2012) is used for the analysis presented here, because of changes that have occurred in the variables included across the surveys.

The 2011–2012 survey sampled 43,636 adult men and women over the age of 18 in a total of 34 countries of Europe. Sample sizes varied considerably from country to country, ranging from 1,001 to 3,055.

Countries surveyed: The 2011–2012 EQLS was implemented in 34 countries. This included all EU27 countries, Croatia (HR – still a candidate country in the survey year), as well as the enlargement countries of Iceland (IS), Kosovo (XK), FYR of Macedonia (MK), Montenegro (ME), Serbia (RS) and Turkey (TR). For the purpose of the analysis, countries were clustered following a categorisation of reconciliation regimes by Eurofound (2010) into the Nordic countries (DK, FI, SE, where we added IS); the Benelux countries (BE, LUX, NL) and FR; the Anglo-Saxon countries (IE, UK); the German-speaking countries (AT, DE); the Southern European countries (IT, EL, ES, PT, CY, MT); the Central and Eastern European (CEE) countries (CZ, EE, HU, LV, LT, PL, SI, SK); Romania (RO) and Bulgaria (BG); and the candidate countries (HR, MK, TR, and we added RS).

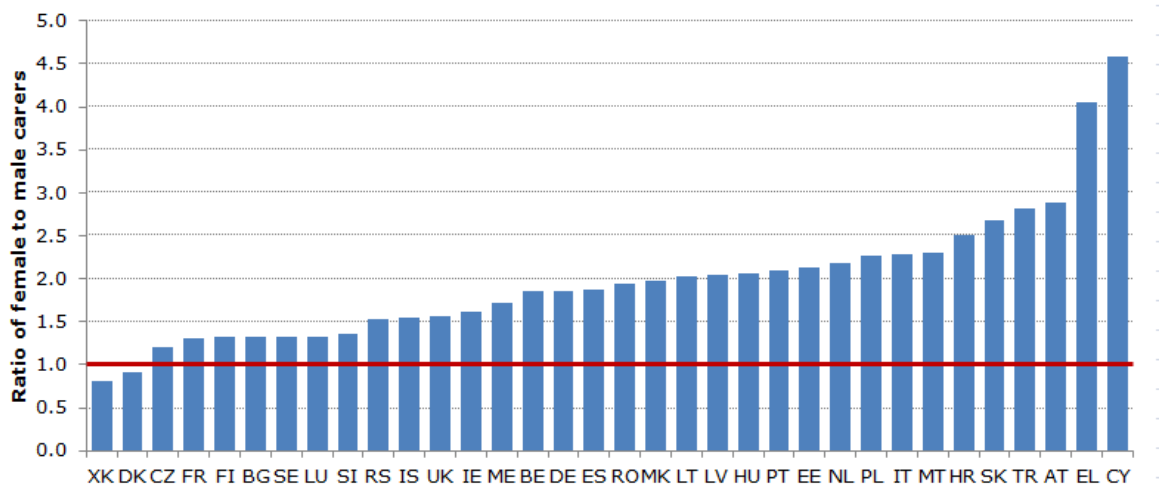
Employment status: respondents were grouped into those *not working*, those working *part time* and those working *full time*, i.e. more than 30 hours per week.

Multivariate analysis: In the multivariate analysis, we estimate two probit models on the probability of being in work (full time or part time) or not, by country. In the first model, we use a *dummy* variable for care provision (1 if a person provides care, 0 if not), while in the second model we use a continuous variable for intensity of care provision (log[1+informal care hours provided per week]). Next, we re-estimate both models, accounting for endogeneity of informal care and employment, using ivprobit, with adult household size as an instrument. The Wald test and Smith-Blundell test of exogeneity are performed for all countries. All models control for socio-demographic characteristics (age; gender; being married or not), socio-economic status (higher education or not; owning one's house or not), and health status (has a chronic or longstanding disease or not). Imputations with average value were used if persons reported caring but did not report the hours of care provided. Frequency weights were used throughout the multivariate analysis.

Informal carers of working age in Europe

Carers make up a sizeable minority of the working-age population (see Annex I, Table A.I.1). Although the share of the working-age population caring for older people varies among the countries surveyed, there are nonetheless some common characteristics. The distribution of carers according to gender is fairly equal only in a limited number of countries, including Denmark and the Czech Republic. There is a substantially higher proportion of female carers in the majority of countries sampled, where the ratio is on average 1:2 (men to women carers) (see Annex I, Table A.I.2).

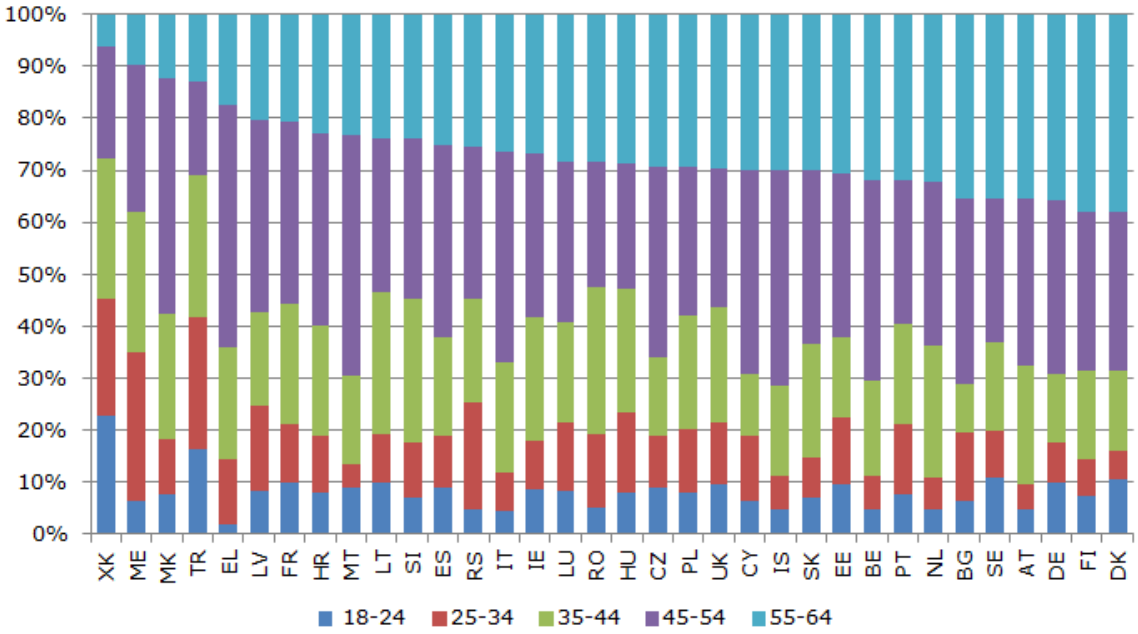
Figure 7: Gender ratio among carers of working age



Source: Own calculations based on EQLS 2011–2012.

As for the age distribution, in most countries informal carers are concentrated in the older age groups, particularly in the 45–54 and 55–64 age groups (Figure 8). The exceptions to this pattern appear among the candidate countries of Turkey, Kosovo and Montenegro, and in Romania; in those countries large numbers of carers are also found in the younger age groups. In the case of Turkey, this may be due to demographics (i.e. a relatively young population) and to the low labour market participation level of all women, irrespective of age and the decision to provide care.

Figure 8: Age distribution of carers



Source: Own calculations based on EQLS 2011–2012.

Employment status of informal carers across age groups

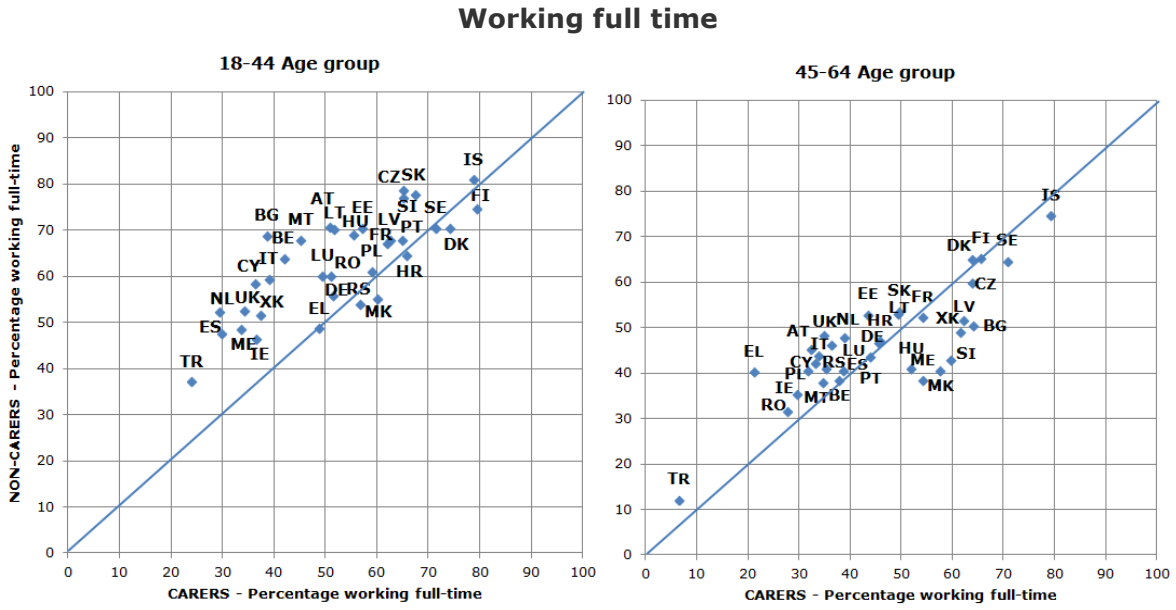
Given the strong gender and age bias in the provision of care, differences in employment between carers and non-carers are analysed first by age and then by gender. For this part of the analysis, because of the small sample sizes in most countries, respondents were assigned to one of two age groups: 18–44 and 45–64.

Employment status is analysed regarding the status of *not working*, working *part time* and working *full time* (Box 1).

Looking at the total population – i.e. all ages and both genders – carers in most countries were less likely to participate in part-time or full-time employment than were non-carers. The exceptions were the Nordic countries, France, certain CEE countries (Hungary, Latvia, Slovenia), certain candidate countries (Croatia, Serbia, Montenegro) and Bulgaria. In those countries, carers and non-carers do not work at similar rates, and in some cases non-carers are more likely not to work (Slovenia, Latvia).

When we look at the older age group (45–64), where often the largest numbers of carers are concentrated, we see a considerable degree of variation in terms of participation in the labour market of carers and non-carers. In the Nordic countries of Denmark, Finland, Sweden and Iceland, there are minimal differences (and statistical insignificance) in the employment rates of the two groups. Indeed, in Sweden and Iceland, carers have higher full-time employment rates than their non-caring counterparts. In addition to Sweden and Iceland, carers in France, the CEE countries of Hungary, Latvia and Slovenia, and the candidate countries of FYR of Macedonia, Kosovo and Montenegro, are more likely to work full time than are non-carers, with the differences being statistically significant. These findings are consistent with the results of a number of studies mentioned earlier, which found that under a certain threshold of hours of care provided per week, carers are more likely to participate in the labour market than are non-carers. It should be noted, however, that in this portion of the analysis, the number of hours of care provided is not accounted for.

Figure 9: Carers and non-carers working full time, by age group



Notes: The 45 degree line denotes equality between the share of carers and of non-carers working full time.

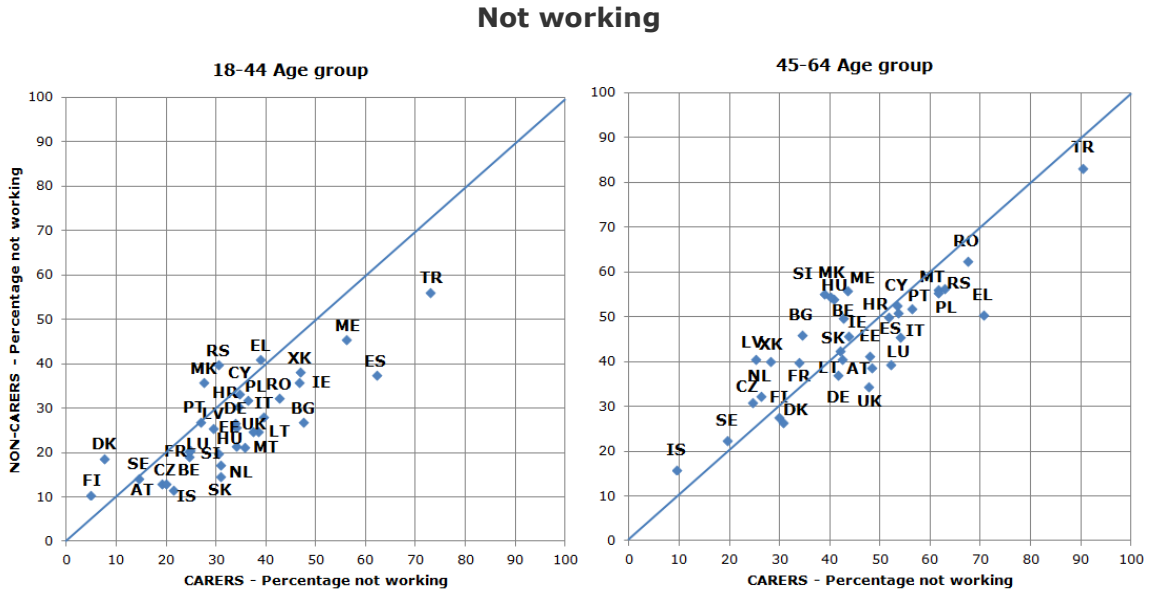
Source: Own calculations based on EQLS 2011–2012.

Looking at the differences between carers and non-carers working full time across the age groups (Figure 9) it is noticeable that the share of those working full time decreases in the older age group (observations become concentrated in the middle of the graph) and that the gap between carers and non-carers becomes less pronounced (observations become more concentrated along the 45 degree line denoting equality).

By contrast, in 11 of the countries surveyed, we find that carers are more likely than non-carers not to be working. These are: Luxembourg, the UK, Austria, Germany,

Italy, Greece, Estonia, Poland, Bulgaria, Turkey and Serbia. With the exception of Serbia, these results are significant in all countries. In the younger age group – those aged 18–44 – this higher likelihood of carers not to be working is present in 17 (half) of the countries (Figure 10). This could be an indication that, for younger carers, the decision to provide care is made because of difficulties in finding part-time or full-time employment, whereas in the older age group the decision to care is born more of the necessity to look after ageing parents/relatives. As a whole, in older age groups there is a higher share of both carers and non-carers not working – observations move along the 45 degree line from the bottom left quadrant to the centre of the graph – but there is also a higher number of countries where non-carers are more likely not to be working than carers – i.e. there are more countries above the 45 degree line denoting equality in the share of non-working.

Figure 10: Carers and non-carers not working, by age group



Notes: The 45 degree line denotes equality between the share of carers and of non-carers working full time.

Source: Own calculations based on EQLS 2011–2012.

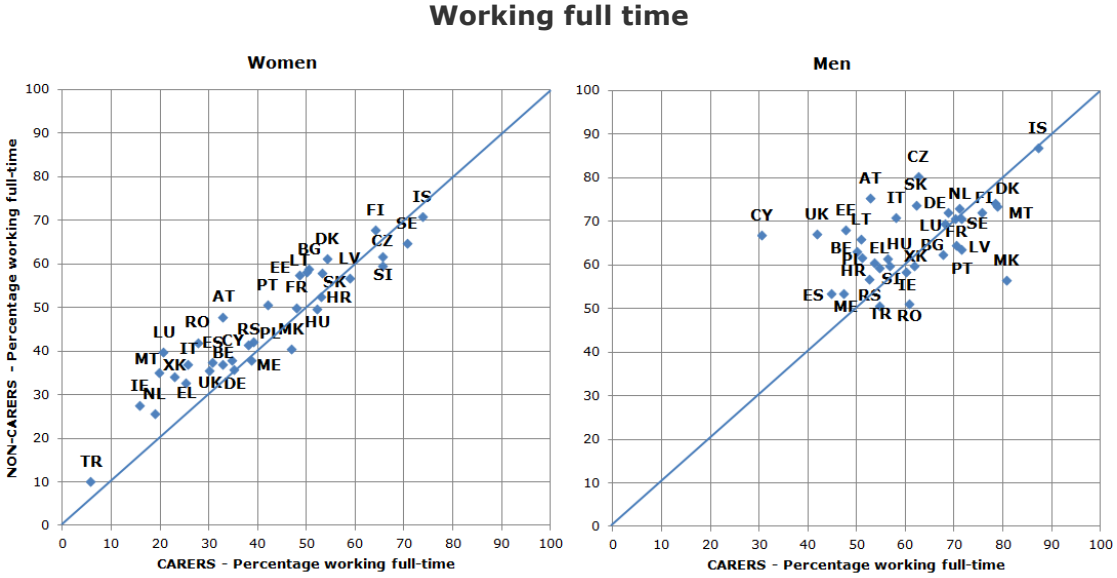
In the older age group, carers in Belgium, the Netherlands, Ireland, Cyprus and Slovakia are more likely to work part time than are non-carers. However, in Belgium, the Netherlands and Cyprus, carers are simultaneously more likely, overall, not to be working than are non-carers. One could interpret this as meaning that the decision to provide care places constraints on an individual's ability to participate in the labour market in a full-time capacity. It could also mean that the decision to provide care follows from having sufficient time to do so, given the part-time employment status of the carer.

Employment status of informal carers by gender

In all of the Southern European countries where the survey was carried out, female carers were more likely not to be working than were those women who had no caring responsibilities. This was also true of Luxembourg and the Netherlands, the UK and Ireland, as well as Romania and Bulgaria, the CEE countries of Estonia, Lithuania and Slovakia and the candidate countries of Kosovo and Turkey. It should be noted that, of the countries surveyed, women (both carers and non-carers) in Turkey had the lowest labour market participation rates, with less than 11% of women reporting being employed in either part-time or full-time work.

In all the Nordic countries, with the exception of Denmark, the difference between female carers and non-carers in terms of their full-time labour market participation was negligible (Figure 11). The same pattern was in evidence in Germany, France, the CEE countries of Hungary, Latvia and Poland, and the candidate countries of Croatia and Montenegro. In two other CEE countries – the Czech Republic and Slovenia – female carers were more likely to be employed full time than were female non-carers. In general, those countries with a higher share of women working full time are also those where female carers have higher employment rates, i.e. higher full-time work among women breeds higher equality in terms of full-time work between women carers and non-carers. For men, this relationship is not present.

Figure 11: Employment status of carers and non-carers by gender



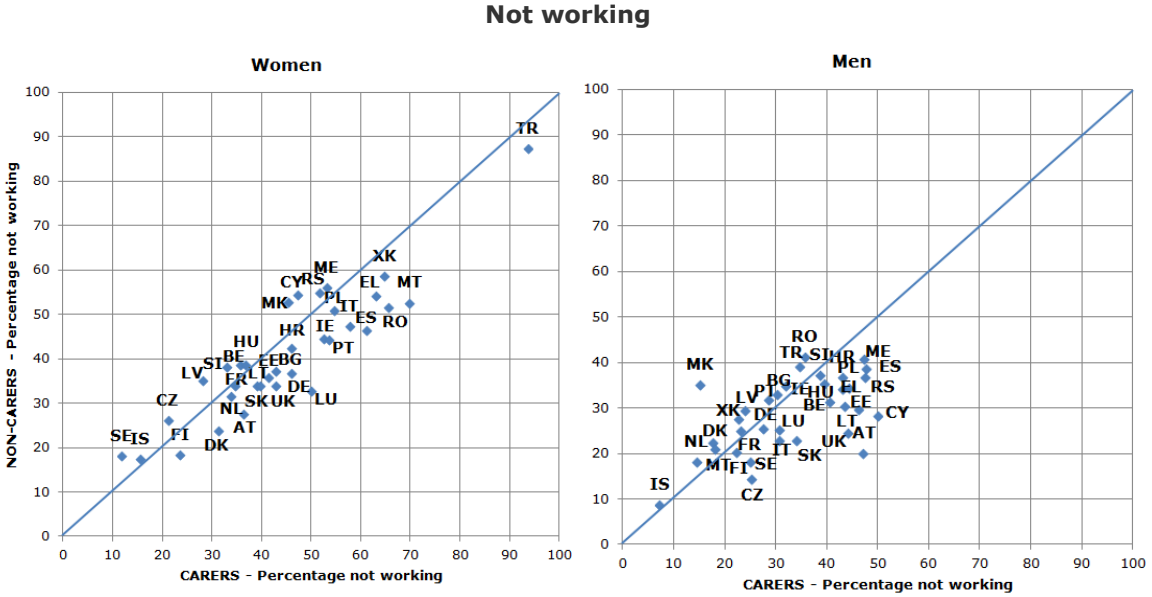
Notes: The 45 degree line denotes equality between the share of carers and of non-carers working full time.

Source: Own calculations based on EQLS 2011–2012.

Female carers are also substantially more likely to work part time than are non-caring females in Belgium, Serbia and Cyprus. In those three countries, carers work full time less often than non-carers, yet are more likely to work part time. Part-time employment among female carers is also prominent in Ireland, Luxembourg, the Netherlands, Austria, Estonia, Italy, Bulgaria and Kosovo, although in those countries, female carers are also more likely not to work at all than are non-caring women (Figure 12).

Comparing the employment status of male carers and male non-carers in the Nordic countries, there were once again minimal differences (Figure 11). The exception was Denmark, where carers were slightly more likely to be employed full time than non-carers. Luxembourg, France, Ireland, Germany, Slovenia and Kosovo also exhibited no substantial differences in the employment status of male carers and non-carers. Male carers were more likely to work full time than were non-carers in Denmark, Portugal, Malta, Latvia, Romania and Bulgaria, and in Turkey and FYR of Macedonia. Notably, in Romania and Bulgaria, male carers were more likely to participate in the labour market, whereas women carers in those same countries were more likely not to work. Male carers in the CEE countries are more likely to drop out of the labour market than are non-caring males (Figure 12). This is in contrast to the situation for female carers in Hungary and Poland, where there are no substantial differences in the labour market participation of carers and non-carers. Again, the number of hours of care provided per week should be kept in mind when drawing comparisons between caring groups.

Figure 12: Employment status of carers and non-carers by gender



Notes: The 45 degree line denotes equality between the share of carers and of non-carers working full time.

Source: Own calculations based on EQLS 2011–2012.

Multivariate analysis of impact on employment

Multivariate analysis looks at the effects of informal care provision on forgone employment, in order to complement and corroborate the findings from the descriptive analysis presented above. While some differences in the employment status of informal carers are easily observable, they may also be heavily influenced by other factors, such as general education levels of the workforce in a specific country. For example, if education levels among female carers are generally low compared to female non-carers, a simple cross-tabulation may overestimate the effect of caring on employment. In order to gain a better understanding of the effect of informal care provision on employment, it is important to control for contextual factors, such as age, gender, socio-economic factors and health status using multivariate analysis techniques (see Box 1 for more on the methods employed).

The decision to provide informal care to a family member or friend could be triggered by not having employment, or carers may actually give up work to provide care. In other cases, the provision of informal care and participation in the labour market could be affected by *endogeneity* – both decisions being taken together. To account for this, instrumental variable regression techniques have been employed, using the number of adults in the household to identify the causal pathways of informal care provision on employment (*instrumental variable probit regression*).

The results are summarised in Table 3 below. Column A gives the effects on employment of simply being an informal carer. That is, these results do not account for the intensity of informal care provision. Since there is a high relevance of *how many* hours of support are provided to elderly family members or friends, Column B takes this factor into account, and reports the effects on employment of an increase in the time spent on informal care provision.

Table 3: Effects of informal care provision on being at work

	A	B
	Change in probability of being in employment, if a carer (ivprobit/probit coefficients)	**Change in probability of being in employment, with an increase in weekly informal care hours provided** [(b)] (ivprobit/probit coefficients)
Austria	**1.275**** [(a)]	**-0.087****
Belgium	**0.228****	0.009
Bulgaria	-1.153 [(a)]	**-0.519*** [(a)]
Croatia	**0.853**** [(a)]	**0.381**** [(a)]
Cyprus	**0.207****	**0.064****
Czech Republic	17.467 [(a)]	7.938 [(a)]
Denmark	13.394 [(a)]	6.839 [(a)]
Estonia	-0.0535	**-0.070***
Finland	**4.702**** [(a)]	5.345 [(a)]
France	**2.333**** [(a)]	**1.687*** [(a)]
Germany	**1.998**** [(a)]	**0.794**** [(a)]
Greece	**-1.319**** [(a)]	**-0.064***
Hungary	-0.076	0.017
Iceland	0.107	0.143
Ireland	1.619 [(a)]	**0.492*** [(a)]
Italy	**-1.821***** [(a)]	**-0.891***** [(a)]
Kosovo	-8.634 [(a)]	-9.260 [(a)]
Latvia	**4.852*** [(a)]	0.029
Lithuania	**-0.161***	**-0.065***
Luxembourg	**-0.185***	**-0.138****
FYR of Macedonia	**0.0392*****	**0.084****
Malta	-0.054	2.150 [(a)]
Montenegro	**-5.105***** [(a)]	**-1.967**** [(a)]
Netherlands	**2.376**** [(a)]	**1.537*** [(a)]
Poland	-0.040	**-0.040****
Portugal	0.035	0.005
Romania	-0.060	**-0.072*****
Serbia	0.044	0.034
Slovakia	-0.071	-0.043
Slovenia	**2.226**** [(a)]	**0.935*** [(a)]
Spain	**-5.166*** [(a)]	**-1.527**** [(a)]
Sweden	0.303	-0.067
Turkey	**-0.133***	**-0.434***
UK	**1.915**** [(a)]	**0.827***** [(a)]

Notes:
(a) Estimation using instrumental variable probit as Wald test and Smith-Blundell test of exogeneity indicated endogeneity.
(b) Imputations with average value if hours were missing and person is a carer. Weekly hours of informal care provided calculated as log(1+hours of care provided per week).
*Significance levels: ***p≤0.01, **p≤0.05, *p≤0.10.*

Source: Own calculations based on EQLS 2011–2012.

The findings suggest that caring for older relatives, particularly in three Southern European countries – Italy, Greece and Spain – has a large negative effect on employment. Within this cluster, Cyprus is an exception, as it seems to be easier there to reconcile informal care and paid work. Furthermore, in Romania and Bulgaria (as well as Montenegro), caring has negative effects on employment. Generally, however, the cluster of EU candidate countries is highly heterogeneous, with FYR of Macedonia and Croatia reporting moderate positive effects, while a small negative effect is found in Turkey.

In some countries, informal care provision and paid work seem to be more readily compatible. Especially in the Benelux cluster and France, informal carers suffer less from forgone employment opportunities. However, Luxembourg is an exception in this cluster, as moderate negative effects are found there. Being a carer is also not negatively associated with paid work in the Anglo-Saxon countries of Ireland and the UK, or in Finland and Germany. For Austria, the results are inconclusive. The CEE cluster shows a mixed picture, with informal care and employment being compatible in Latvia and Slovenia, but not in Lithuania, Estonia or Poland.

From a policy perspective, the results – particularly of Column B – are highly interesting and relevant. After all, the intensity with which care is provided has important implications on labour market opportunities for informal carers, including their earnings and the need for more flexible working schedules. Three major factors may play a role in shaping reconciliation of caregiving and employment: the number of hours of informal care provided per carer (care intensity); the availability of formal care for the person cared for and of respite care services; and policies supporting informal carers in combining work and care, such as care leave.

The EU28 and the EU candidate countries in which caring duties need not prevent people from continuing in the workplace include a number of countries in which sound measures have been implemented to avoid informal carers dropping out of the labour market. For example, France, Germany and the Netherlands offer part-time leave to support informal carers in reconciling their work and care obligations. Also, Slovenia and Ireland offer the possibility of paid leave for people caring for their older or disabled relatives. While reconciliation does not seem to be a problem in Croatia or the UK either, these countries provide only limited support for informal carers in terms of care leave. At the same time, however, the countries in which significant *negative* effects were found, such as Spain and Italy, have relatively generous public schemes to support carers: in Italy, paid leave is offered to carers for a period of up to 24 months, and in Spain even more leave is available, albeit unpaid (cf. Rodrigues et al., 2012). It is possible that these rather long periods of leave make it harder for carers to return to work afterwards.

With regard to coverage of formal care and respite care services, it is surprising that no significant results were found in the Nordic countries, such as Sweden, Denmark or Iceland, where there is good availability of such services. By contrast, those countries in which informal carers seem to be disadvantaged in terms of their employment opportunities tend to be characterised by a low availability of services, and high care intensity, such as Spain, Italy, Greece, Poland, Lithuania, Estonia, Romania, Bulgaria, Turkey and Montenegro (Rodrigues et al., 2012).

Impact of caring on health

In this section we examine the effects of providing care informally on the physical and mental health status of carers, as opposed to non-carers. The data used for the subsequent analysis originate from the fourth wave of the Survey of Health, Ageing and Retirement in Europe (SHARE).

The sample consists of 25,939 individuals (11,771 males and 14,168 females) from 15 countries. Of these individuals, 2,271 (8.8%) had provided care to someone residing in the same household as the respondent during the previous year. Also, 6,998 (26.9%) individuals had provided care to someone residing outside their household in the previous year. The mean age of informal care providers in the sample for all countries combined was 59.5 years for men and 57.5 years for women.

Box 2: SHARE data and methodology

Data: SHARE is a multidisciplinary and cross-national panel database of micro data, focused on individuals aged 50+. The fourth wave of the survey took place in 2011, with the participation of 16 countries (i.e. Austria, Germany, Sweden, the Netherlands, Spain, Italy, France, Denmark, Switzerland, Belgium, the Czech Republic, Poland, Hungary, Portugal, Slovenia and Estonia). All countries were used in the analysis, with the exception of Switzerland.

Variables: Physical health status was measured by self-reported health (five-point scale) and mental health status was measured by binary indicators for the existence of depression and other symptoms, such as suicidal thoughts, lack of concentration, troubled sleep, tearfulness and fatigue. The provision of care was measured by two variables indicating whether the respondent had provided care during the previous year to people residing either inside or outside the household. There is no variable indicating the intensity of the care given inside the household (which is the main variable of interest), and therefore no variable measuring the intensity of care was included in the analysis. Provision of care included personal care provided continuously on a daily or almost daily basis (inside the household) and personal care and practical household help (outside the household). All results presented are weighted.

Multivariate analysis: Multivariate analysis was performed using ordered logistic models for self-reported health and logistic models for the binary indicators. Instead of coefficients, results are presented as odds ratios. Age, gender, income (log) and the presence of formal carers (e.g. care agencies or professional carers) and siblings in the respondent's close social network were used as standardising variables in all regressions. For the country analysis, individual country logistic regressions were used, accounting for the same variables as presented above.

Differences in the provision of care by gender and across countries

In 2011, 10.0% of women in the sample provided care to someone inside their household, as opposed to 7.3% of men (Pearson chi-square=40.25, $p<0.001$). Women outnumber men also in the provision of care outside the household (28.6% versus 25.0%, Pearson chi-square=42.57, $p<0.001$). The countries with the largest proportion of individuals in the sample providing care inside the household are Portugal (12.3%), Spain (11.9%) and Italy (10.7%). The countries with the largest proportion of individuals in the sample offering care outside the household are Denmark (48.7%), Sweden (38.4%) and Belgium (36.8%). Among other factors – namely the availability of care services – results reflect the North/South divide in multigenerational households.

Multivariate analysis of impact on physical health

In order to examine the differences in the health status of informal carers, compared to non-carers, a series of logistic regressions was performed using various health status variables as dependent variables, and two care-provision dummy variables (i.e. care provided inside and outside the home) as the independent variables controlling for age, gender and possible sharing of the burden of care (by individuals belonging to the close social network of the respondent). Table 4 shows the results of the ordered logistic model for self-reported health for all countries.

Table 4: Effects of informal care provision on self-reported health (all countries)

	Self-reported health	
	Odds ratios	**Standard error**
Care given inside household	**1.68** ***	0.24
Care given outside household	**0.80***	0.73
Professional care in the social network	1.44	0.84
Siblings in social network	0.93	0.08
Income (log)	**0.80*****	0.02
Female	**1.19***	0.94
Age 60–70	**1.93*****	0.17
Age 70–80	**3.67*****	0.45
Age 80+	**3.36*****	0.85

Notes: N=14,576, Wald chi-square=272.76, p<0.001.
**p<0.05, **p<0.01, ***p<0.001Respondent's self-reported health: 1 (excellent) to 5 (poor).*

Source: Own calculations based on SHARE (wave 4).

The results indicate that there is a strong relationship between providing informal care inside the household and physical health. The odds of reporting worse health are 68% higher for carers compared to non-providers (this effect is valid for every category of the dependent variable, due to the proportional odds assumption of the ordered logistic model). On the other hand, providing informal care outside the household seems to be associated with a reduced probability of reporting bad health, even though this effect corresponds to a lower level of statistical significance ($p<0.05$).

As Table 5 shows, for care given inside the household, the effects are particularly large (and statistically significant) in Portugal, Slovenia, Estonia and Spain. In Portugal, those providing care to a person residing in their home are 225% more likely to report poor health than are non-caregivers. The effects are the opposite in Sweden, the Netherlands, Belgium and Hungary, but the results are generally statistically insignificant – the only exception being the Netherlands ($p<0.05$).

Table 5: Odds ratios for self-reported health (care given inside the household)

	Self-reported health	
Country	**Odds ratio**	**Standard error**
Austria	1.13	0.24
Germany	1.39	0.40
Sweden	0.77	0.24
Netherlands	**0.44***	0.16
Spain	**1.81****	0.39
Italy	2.20	0.98
France	**1.52***	0.29
Denmark	1.63	0.52
Belgium	0.91	0.23
Czech Republic	1.32	0.35
Poland	1.10	0.23
Hungary	0.71	0.19
Portugal	**3.25****	1.24
Slovenia	**2.07***	0.63
Estonia	**1.85*****	0.32

*Notes: *p<0.05, **p<0.01, ***p<0.001, N varies.*
Respondent's self-reported health: 1 (excellent) to 5 (poor).

Source: Own calculations based on SHARE (wave 4).

Differences for care provided outside the household by country can be seen in Annex II (Table A.II.1). In general, the odds ratios are smaller than 1, with the exception of Spain, the Czech Republic, Denmark and Hungary indicating that providing care to a person residing outside the caregiver's household is not associated with worse self-reported health. That better health outcomes are associated with informal provision of care outside the household cannot be supported, since in most cases the effect is not statistically significant.

Multivariate analysis of impact on mental health

For analysis of the impact of caring on mental health, logistic regression was used with binary indicators for depression and a series of other poor mental health symptoms (fatigue, suicidal thoughts, lack of concentration, tearfulness and troubled sleep) as dependent variables. The results are again reported as odds ratios, and the same controls as in the ordered logistic model for self-reported health were included.

The results for all dependent variables show a strong correlation between providing care to a person residing in the same household and poor mental health. Table 6 presents the results of the regressions for depression and tearfulness (for all countries). Providing care to a person in the same household increases the odds of self-reported depression by 68%. It also increases the odds of self-reported tearfulness by 114% (both effects statistically significant, p<0.001).

Table 6: Effect of caring on depression and tearfulness (all countries)

	Depression		Tearfulness	
	Odds ratio	**Standard error**	**Odds ratio**	**Standard error**
Care given inside household	**1.68*** **	0.23	**2.14*** **	0.34
Care given outside household	**1.24***	0.12	1.24	0.15
Professional care in the social network	2.53	1.25	3.41	2.19
Siblings in social network	**1.27** **	0.13	1.23	0.16
Income (log)	**0.89*** **	0.03	**0.88** **	0.35
Female	2.31	0.20	**3.53*** **	0.45
Age 60–70	1.03	0.10	0.92	0.10
Age 70–80	1.12	0.14	0.99	0.15
Age 80+	**1.75***	0.47	**1.17*** **	0.41

*Notes: *p<0.05, **p<0.01, ***p<0.001, N= 14,576.*
Depression and other symptoms: 1 (yes) or 0 (no).

Source: Own calculations based on SHARE (wave 4).

Odds ratios larger than 1 are reported for caring inside the household for all poor mental health symptoms (see Annex II), including suicidal thoughts, lack of concentration, fatigue and troubled sleep. All effects are statistically significant.

As far as the correlation between providing care to a person residing outside the household and mental health is concerned, the results are mixed, indicating an increase in the odds of self-reported depression and tearfulness of 24% ($p<0.05$) and trouble sleeping of 75% ($p<0.01$), but a decrease in the odds of self-reported suicidal thoughts and fatigue (though the effect is statistically insignificant – for more details see Annex II, Table A.II.2).

The results of analysis of the provision of care (both inside and outside the household) and mental health by country vary greatly, due to the large number of dependent variables and countries. For provision inside the household, the odds ratios are larger than 1 (indicating poorer mental health outcomes for carers), with minor exceptions; whereas for provision of care outside the household, variability is even greater, but with few statistically significant results. A large effect on caregivers' self-reported depression is noticed in the Czech Republic and Slovenia, with the odds of reporting depression 139% and 231% (respectively) higher among people taking care of someone in their household than among non-caregivers (effect statistically significant, $p<0.001$ – for a more detailed analysis, see Annex II, Table A.II.4).

The results presented here are consistent with the literature on the impact of informal caregiving on the health status of providers, reviewed earlier in this research note. In particular, previous studies found a strong relationship between providing informal care to relatives (such as elderly spouses and parents) and poor health outcomes (such as high blood pressure, coronary heart disease, stress and depression). These effects have been found to be strong especially in the case of co-residency and when the intensity of caregiving is high (see Coe and Van Houtven, 2009; Lee et al., 2003; Sorensen et al., 2002; Schultz and Beach, 1999).

Outsourcing family care – the case of migrant carers

The previous section portrayed the constraints faced by working-age carers in reconciling paid employment and caring. One of the strategies employed, to varying degrees, by families across Europe to deal with these constraints has been the "outsourcing" of care for dependent older relatives to migrant carers.

Besides the societal and demographic factors alluded to above, the migrant care phenomenon has been motivated by "push" factors, including high unemployment rates and comparatively low wages in the home countries of migrants; and by "pull" factors such as open borders, the promise of better employment opportunities and a steady demand for labour (Mestheneos and Triantafillou, 2005; Triandafyllidou, 2013; Di Santo and Ceruzzi, 2010).

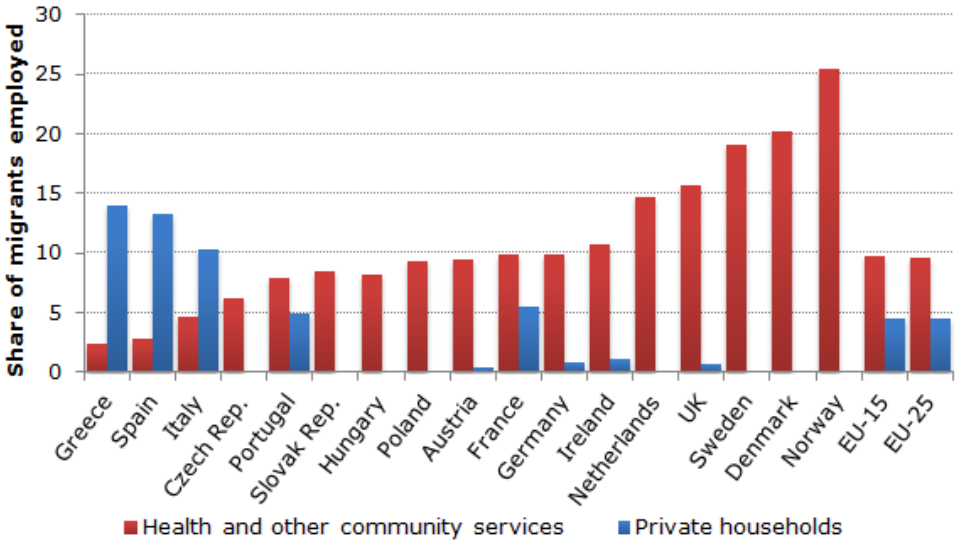
The degree to which countries have experienced a growth in migrant carers is, however, heavily influenced also by their long-term care and immigration policies (Rostgaard et al., 2011). For example, van Hooren (2012) explains the variation in patterns of migrant care work with differences in "care regimes". The *familialistic care* regimes that exist in Italy, Spain and Greece lead to a "migrant in the family" model of care; the *liberal care regime* in the UK results in a "migrant in the market" model of care work; and the *social democratic care regimes* that predominate in the Nordic countries create little demand for informal migrant care (van Hooren, 2012). Lamura (2013) divides the countries of Europe into two types of regime: that modelled on regulated migration, and that on unregulated migration. The first category includes the liberal and continental regimes; the second the familialistic ones. Austria and Germany – the two "continental" countries with significant migrant carer populations – fall somewhere in the middle, in terms of their regularisation and long-term care policies. It is important to keep these distinctions in mind when considering the characteristics of migrant care in Europe.

Distribution and significance of migrant carers in informal care

Reliable data on the number of migrants working in informal care are scarce, due to the fact that many migrants are undeclared in their host country. What is clear, however, is that in countries characterised by familialistic care regimes (in which the direct employment of carers by private households is prevalent and made possible by unregulated cash benefits), migrants constitute a significant share of the caring workforce (Rodrigues et al., 2012). Countries adhering to this model include Italy, Spain and Greece – i.e. most of the Southern countries, with the exception of Portugal. In addition, migrant carers are also significant in Germany and Austria.

Some figures on the scale of the migrant care workforce, however, do exist (Figure 13). Across the EU countries surveyed, the share of migrant workers employed in households exceeds the share working in residential care (Rodrigues et al., 2012). In Austria, it is estimated that 50% of all carers (in both residential and home settings) are foreign-born, and that 5–10% of older people requiring care are cared for by migrant carers or "24-hour assistants", as they have come to be known (Bednárik et al., 2013). In another estimate, Di Santo and Ceruzzi (2010) found that, of 20,000 employees registered as working (legally) in private households (providing care and/or domestic services) in Austria, approximately 85% were foreign-born. In Germany, it is estimated that anywhere between 50,000 and 200,000 migrant workers (both legal and illegal; providing care and/or domestic services) are employed by private households (ibid.). In Spain, it is believed that migrants constitute 30% of the total care workforce, and estimates from 2006 reveal that more than 223,000 were working as carers in private households (ibid.). In Italy, where the highest number of migrant carers is recorded, around 700,000 migrant carers are believed to be employed in the informal care sector (ibid.). All these calculations probably underestimate the full scale of the migrant carer situation, as they do not include undeclared/illegal migrant workers. In the Nordic countries and France, the relevant data are even more limited.

Figure 13: Employment of migrants in health and other community services and in private households (2005–2006)



Source: Adapted from Colombo et al. (2011: 177), based on Eurostat Labour Force Survey.

Migrant carer profile

The profile of migrant carers shares a number of common features across countries (Table 7). First, the majority are middle-aged women, although there are substantial numbers of younger and older carers in the UK and Italy, respectively (Rodrigues et al., 2012; Fujisawa and Colombo, 2009; Colombo et al., 2011; Rostgaard et al., 2011). Despite the strong feminisation of the overall migrant care workforce, the UK has experienced an influx of young male migrants: they constitute 31% of the total migrant care workforce entering the country over the past decade (Rostgaard et al., 2011).

Second, the migrant carer's home country tends to be linked to the host country by geographical proximity or historical ties. Significant numbers of migrant carers in Spain come from Latin America; similarly France receives many migrant carers from former colonies in North Africa (Rodrigues et al., 2012).

A third characteristic is the relative over-qualification of migrant carers. In certain countries for which education level is available, "de-skilling" is evident among migrants working in long-term care as a whole (Colombo et al., 2011; Rodrigues et al., 2012). For example, migrants with nursing qualifications in their home countries often work at a lower level in the host country. Alternatively, migrants with other post-secondary qualifications from their country of origin end up working in long-term care once they arrive in the host country because it is one of the few options open to them, particularly if they are seeking work in an undeclared/illegal capacity (Rodrigues et al., 2012).

Finally, migrants tend to earn less than their native-born counterparts, especially in countries where care is less formalised and undeclared migrant labour is common (Triandafyllidou, 2013; Rodrigues et al., 2012).

Table 7: Profile of migrant carers in selected countries and welfare regimes

Country	Welfare regime	Gender	Age	Main countries of origin	Level of education
Austria	Continental/ Bismarckian	Mainly female	Mainly middle-age	Czech Rep., Hungary, Slovakia	Usually higher than required
Germany	Continental/ Bismarckian	Mainly female	Mainly middle-age	Poland, Czech Rep., Slovenia	Usually higher than required
Denmark	Nordic/Social Democratic	Mainly female	Mainly middle-age	Second generation from Turkey	Usually higher than required
Spain	Southern	Mainly female	Mainly middle-age	Latin America, Morocco	Usually higher than required
Greece	Southern	Mainly female	Mainly middle-age	Bulgaria, Poland, Albania	Usually higher than required
Italy	Southern	Mainly female	Also older	Ukraine, Romania, Poland, Philippines	Often highly skilled
Ireland	Liberal/Beveridge	Mainly female	Mainly middle-age	Philippines, Poland	Usually higher than required
United Kingdom	Liberal/Beveridge	Mainly female	Also younger	Asia, Central and Eastern Europe	Usually higher than required
France	Mixed	Mainly female	Mainly middle-age	North Africa	Usually higher than required

Sources: Colombo et al. (2011: 175); Di Santo and Ceruzzi (2010: 10–11); Fujisawa and Colombo (2009: 31–32); Lutz and Palenga- Möllenbeck (2010: 420–421); Simonazzi (2009).

In Italy, the primary countries of origin of migrant carers include Ukraine, Romania, Poland and the Philippines (Di Santo and Ceruzzi, 2010). In Greece, most carers come from Albania, Bulgaria and Poland (ibid.). Austria's immediate neighbours in Central and Eastern Europe supply a large proportion of the migrant care workforce, including Hungary and the Czech and Slovak Republics (Rodrigues et al., 2012). These "24 hour assistants" are often hired through an intermediary agency in Austria or in the home country, and the care work for one household is shared among two or three such carers (Bednárik et al., 2013). Germany's migrant carers also mainly hail from Central and Eastern Europe, including Slovenia, Poland and the Czech Republic (Rodrigues et al., 2012; Di Santo and Ceruzzi, 2010). In Spain, most carers are from Spanish-speaking countries in Latin America; similarly, most migrant carers in France come from French-speaking countries of North Africa (Rodrigues et al., 2012). In addition to countries in Central and Eastern Europe, the UK has seen significant numbers of carers coming from India, Zimbabwe and Nigeria (Cangiano et al., 2009). In the Nordic countries, large numbers of migrant carers from Turkey, Central and Eastern Europe, Africa, Latin America and Asia work in the long-term care sector. Due to the high level of coverage offered by public sector services, however, most are employed by *formal* rather than informal residential and home care providers (Rostgaard et al., 2011). The Central and Eastern European migrant carer group is singular, in that carers tend to come from middle-class backgrounds, are generally well educated, and travel back and forth at irregular intervals between the host and the home country to undertake temporary work (Bettio et al., 2006). This short-term and irregular migration is made possible by the proximity of the countries in question and by the ease of travel between them.

Concluding remarks

There is a high degree of variation in the availability of care services across Europe, reflecting different policy approaches to the issue of care for dependent older people – namely the degree to which countries rely on care provided by family members.

The provision of informal care may, however, carry with it significant costs for carers, in terms of both health and forgone employment. The empirical analysis carried out with EQLS 2011–2012 data showed significant differences in employment between carers and non-carers, suggesting that in a number of countries there is a negative effect on employment of caring, particularly among those aged 18–44. Results are corroborated to some extent by the multivariate analysis, although important caveats apply, such as the lack of panel data (thus limiting the possibility to establish causality) and of information on the health of the older relative and on the formal care services received. As women make up a significant majority of carers, there is a strong gender dimension attached to these results. It is also clear that encouraging the employment of women as a whole and fostering care services could improve the reconciliation of care and employment.

As for the impact on health, the results indicate a strong correlation between the provision of care and the health status of caregivers, especially in the case of co-residency of carers and recipients of care. This effect is strong for both self-reported overall health and specific mental health symptoms. Possible explanations for the results presented above might include the actual physical strain of providing daily care to a person who is unable to attend to his/her own needs, as well as the emotional burden. Nevertheless, even though the associations presented here are strong, it is possible that some *reverse causation* might be present: the least healthy individuals might be more likely to choose to stay at home and provide care. On the other hand, some *endogeneity* may also be present: a low propensity to work and other relevant factors may be related to both adverse health effects and caregiving. Controlling for household income and the fact that all individuals in the sample are aged over 50 mitigate these effects; but further analysis is needed to investigate their exact magnitude and direction.

Migrant carers are an important phenomenon in a number of countries of Europe at present, and their importance partially reflects the outsourcing of caring by families. The profile of migrant carers reveals a group that is made up mostly of women from EU countries and beyond, who are frequently over-qualified for the care tasks they provide, although they often earn low wages. It is also clear that differences in the employment of migrant carers – either in the household or in formal care services – are driven also by public long-term care and migration policies in the host countries. The possibility that care gaps could develop in the EU "sending" countries is real.

The data presented in this research note attests both to the importance of informal care (including migrant carers working in informal markets) in the overall provision of care, as well as to the possible adverse consequences of not supporting carers for society as a whole (e.g. lower employment rates and poorer health). The differences between countries reflect not only cultural preferences and views regarding care, but also the impact of public policies that are highly dissimilar in terms of the degree and type of support that they offer carers. This signals that it is possible to significantly affect and address many of the issues identified here through sound policies.

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Annex I: EQLS 2011–2012 results

Table A.I.1: Percentage of carers in the working-age population

Country code	Country	% Carers	Total N
AT	Austria	13.0	1583
BE	Belgium	18.0	1522
BG	Bulgaria	16.6	1486
CY	Cyprus	10.7	1886
CZ	Czech Republic	13.9	1741
DE	Germany	9.8	3852
DK	Denmark	7.8	1347
EE	Estonia	17.3	1283
EL	Greece	13.6	1628
ES	Spain	16.4	2436
FI	Finland	19.2	1293
FR	France	20.4	3164
HU	Hungary	21.0	730
IE	Ireland	21.1	1680
IT	Italy	25.2	3905
LT	Lithuania	25.7	1550
LU	Luxembourg	12.9	1664
LV	Latvia	18.6	1342
MT	Malta	14.4	780
NL	Netherlands	15.2	1464
PL	Poland	18.1	4544
PT	Portugal	14.3	1444
RO	Romania	16.5	2673
SE	Sweden	8.5	765
SI	Slovenia	15.2	746
SK	Slovakia	17.4	1802
UK	UK	18.6	2994
TR	Turkey	21.3	4381
HR	Croatia	23.9	1905
MK	FYR Macedonia	11.4	2429
XK	Kosovo	34.7	2897
RS	Serbia	12.7	2202
ME	Montenegro	9.9	2205
IS	Iceland	18.7	804

Table A.I.2: Gender balance among carers of working age

Country code	Country	% Male	% Female	Ratio	Total N
AT	Austria	25.7	74.3	2.89	206
BE	Belgium	35.0	65.0	1.85	274
BG	Bulgaria	43.1	56.9	1.32	246
CY	Cyprus	17.9	82.1	4.58	201
CZ	Czech Republic	45.5	54.6	1.20	242
DE	Germany	35.0	65.0	1.86	377
DK	Denmark	52.4	47.6	0.91	105
EE	Estonia	32.0	68.0	2.13	222
EL	Greece	19.8	80.2	4.05	222
ES	Spain	34.8	65.3	1.88	400
FI	Finland	43.2	56.9	1.32	248
FR	France	43.4	56.6	1.30	645
HU	Hungary	32.7	67.3	2.06	153
IE	Ireland	38.1	61.9	1.62	354
IT	Italy	30.4	69.6	2.29	984
LT	Lithuania	33.1	66.9	2.02	399
LU	Luxembourg	43.0	57.0	1.33	214
LV	Latvia	32.8	67.2	2.05	250
MT	Malta	30.4	69.6	2.29	112
NL	Netherlands	31.4	68.6	2.19	223
PL	Poland	30.6	69.4	2.27	820
PT	Portugal	32.4	67.6	2.09	207
RO	Romania	33.9	66.1	1.95	442
SE	Sweden	43.1	56.9	1.32	65
SI	Slovenia	42.5	57.5	1.35	113
SK	Slovakia	27.2	72.8	2.68	313
UK	UK	39.0	61.0	1.56	556
TR	Turkey	26.2	73.8	2.81	934
HR	Croatia	28.5	71.5	2.51	456
MK	FYR Macedonia	33.6	66.4	1.98	277
XK	Kosovo	55.0	45.0	0.82	1005
RS	Serbia	39.4	60.6	1.54	279
ME	Montenegro	36.7	63.3	1.72	218
IS	Iceland	39.3	60.7	1.54	150

Table A.I.3: Age distribution of carers of working age

Country code	Country	18–24 years old %	25–34 years old %	35–44 years old %	45–54 years old %	55–64 years old %	Total N
AT	Austria	4.9	4.9	22.8	32.0	35.4	206
BE	Belgium	4.7	6.6	18.3	38.7	31.8	274
BG	Bulgaria	6.5	13.0	9.4	35.8	35.4	246
CY	Cyprus	6.5	12.4	11.9	39.3	29.9	201
CZ	Czech Republic	9.1	9.9	14.9	36.8	29.3	242
DE	Germany	9.8	8.0	13.0	33.4	35.8	377
DK	Denmark	10.5	5.7	15.2	30.5	38.1	105
EE	Estonia	9.5	13.1	15.3	31.5	30.6	222
EL	Greece	1.8	12.6	21.6	46.4	17.6	222
ES	Spain	9.0	10.0	18.8	37.3	25.0	400
FI	Finland	7.3	7.3	16.9	30.7	37.9	248
FR	France	9.9	11.3	23.0	35.0	20.8	645
HU	Hungary	7.8	15.7	23.5	24.2	28.8	153
IE	Ireland	8.8	9.3	23.7	31.4	26.8	354
IT	Italy	4.5	7.3	21.2	40.5	26.5	984
LT	Lithuania	9.8	9.5	27.3	29.6	23.8	399
LU	Luxembourg	8.4	13.1	19.2	30.8	28.5	214
LV	Latvia	8.4	16.4	18.0	36.8	20.4	250
MT	Malta	8.9	4.5	17.0	46.4	23.2	112
NL	Netherlands	4.9	5.8	25.6	31.4	32.3	223
PL	Poland	7.9	12.3	21.7	28.7	29.4	820
PT	Portugal	7.7	13.5	19.3	27.5	31.9	207
RO	Romania	5.2	14.0	28.3	24.0	28.5	442
SE	Sweden	10.8	9.2	16.9	27.7	35.4	65
SI	Slovenia	7.1	10.6	27.4	31.0	23.9	113
SK	Slovakia	7.0	7.7	22.0	33.2	30.0	313
UK	UK	9.5	11.9	22.1	27.0	29.5	556
TR	Turkey	16.3	25.6	27.2	17.9	13.1	934
HR	Croatia	8.1	11.0	21.1	36.8	23.0	456
MK	FYR Macedonia	7.6	10.8	23.8	45.5	12.3	277
XK	Kosovo	22.7	22.5	27.2	21.4	6.3	1005
RS	Serbia	4.7	20.8	19.7	29.4	25.5	279
ME	Montenegro	6.4	28.4	27.1	28.4	9.6	218
IS	Iceland	4.7	6.7	17.3	41.3	30.0	150

Table A.I.4: Differences in employment between carers and non-carers – total working-age population

Country code	Country	Total							
		Non-carers				Carers			
		% not working	% part-time	% full-time	Total N	% not working	% part-time	% full-time	Total N
AT	Austria	24.7	16.1	59.2	1297	39.1	22.8	38.1	202
BE	Belgium	34.9	14.1	51.0	1103	37.5	23.6	39.0	267
BG	Bulgaria	35.7	3.9	60.5	1196	37.5	4.7	57.8	232
CY	Cyprus	44.3	6.3	49.4	1577	47.7	18.3	34.0	197
CZ	Czech Republic	20.4	8.6	71.0	1336	23.0	12.8	64.2	226
DE	Germany	32.2	16.8	51.0	3145	39.2	13.5	47.2	362
DK	Denmark	23.2	9.4	67.3	1133	24.2	9.1	66.7	99
EE	Estonia	33.2	4.7	62.2	967	42.8	8.8	48.4	215
EL	Greece	44.9	9.8	45.3	1322	59.0	9.9	31.1	222
ES	Spain	43.0	12.2	44.8	1904	56.4	8.1	35.5	383
FI	Finland	19.3	10.8	69.9	947	22.9	7.8	69.3	231
FR	France	29.9	10.2	60.0	2351	29.7	12.8	57.5	623
HU	Hungary	37.2	7.2	55.6	529	37.7	8.9	53.4	146
IE	Ireland	40.3	18.1	41.5	1235	44.8	23.0	32.2	335
IT	Italy	37.1	11.4	51.5	2649	49.5	15.1	35.4	939
LT	Lithuania	32.4	5.6	62.0	1047	40.5	9.2	50.3	370
LU	Luxembourg	29.4	17.0	53.7	1375	41.7	17.2	41.2	204
LV	Latvia	32.8	7.1	60.1	1017	26.8	10.9	62.3	239
MT	Malta	36.9	8.5	54.6	621	54.1	8.3	37.6	109
NL	Netherlands	24.8	25.0	50.2	1128	27.7	36.9	35.5	217
PL	Poland	44.0	5.4	50.7	3478	51.5	5.9	42.6	793
PT	Portugal	38.8	4.7	56.5	1148	45.4	3.1	51.6	194
RO	Romania	46.7	6.7	46.6	2077	55.8	5.8	38.4	432
SE	Sweden	18.2	14.0	67.8	599	17.7	11.3	71.0	62
SI	Slovenia	37.8	2.4	59.8	540	35.2	2.9	61.9	105
SK	Slovakia	29.0	5.7	65.3	1394	38.1	6.3	55.6	302
UK	UK	29.6	19.9	50.6	2338	43.3	22.1	34.6	538
TR	Turkey	66.1	5.8	28.1	3102	78.7	3.2	18.1	856
HR	Croatia	40.0	3.9	56.1	1247	45.2	1.6	53.2	436
MK	FYR Macedonia	43.9	7.3	48.8	1801	34.8	6.7	58.5	270
XK	Kosovo	38.9	10.4	50.7	1493	40.5	14.2	45.3	844
RS	Serbia	46.7	4.8	48.6	1616	50.0	6.4	43.7	252
ME	Montenegro	49.3	5.8	45.0	1494	51.0	7.2	41.8	208
IS	Iceland	13.7	8.3	78.0	590	12.2	8.6	79.1	139

Table A.I.5: Differences in employment between carers and non-carers – 18–44 age group

Country code	Country	18–44							
		Non-carers				Carers			
		% not working	% part-time	% full-time	Total N	% not working	% part-time	% full-time	Total N
AT	Austria	13.1	16.3	70.6	711	19.1	30.2	50.8	32.37
BE	Belgium	19.1	16.9	63.9	538	24.3	33.8	41.9	37.82
BG	Bulgaria	26.8	4.3	68.8	645	47.4	14.0	38.6	64
CY	Cyprus	33.2	8.2	58.5	680	34.5	29.3	36.2	33.09
CZ	Czech Republic	13.0	8.3	78.7	784	19.7	15.2	65.2	63.75
DE	Germany	26.7	17.6	55.7	1493	33.7	14.9	51.5	45.59
DK	Denmark	18.7	10.9	70.4	470	7.4	18.5	74.1	63.89
EE	Estonia	25.7	3.8	70.5	505	33.8	9.1	57.1	43.48
EL	Greece	41.0	10.3	48.7	776	38.8	12.5	48.8	21.13
ES	Spain	37.4	14.9	47.7	1114	61.9	8.2	29.9	38.55
FI	Finland	10.5	14.9	74.7	458	4.8	15.9	79.4	65.48
FR	France	20.4	12.6	67.0	1216	24.3	13.7	62.0	54.17
HU	Hungary	21.5	9.5	69.0	274	33.9	10.8	55.4	51.85
IE	Ireland	35.8	17.7	46.5	677	46.5	17.1	36.4	29.61
IT	Italy	28.1	12.5	59.4	1289	39.3	21.8	38.9	33.84
LT	Lithuania	24.8	5.0	70.2	541	38.2	10.2	51.6	49.3
LU	Luxembourg	20.5	19.4	60.2	728	24.7	26.0	49.4	36.22
LV	Latvia	25.5	6.7	67.8	525	29.2	8.3	62.5	62.24
MT	Malta	21.3	10.8	67.9	343	35.5	19.4	45.2	34.62
NL	Netherlands	17.2	30.5	52.3	564	30.7	40.0	29.3	38.73
PL	Poland	31.8	7.2	61.0	1698	36.3	4.7	59.0	31.72
PT	Portugal	26.9	5.1	67.9	605	26.8	8.5	64.8	43.9
RO	Romania	32.3	7.6	60.1	1087	42.5	6.5	51.0	27.59
SE	Sweden	14.3	15.2	70.5	315	14.3	14.3	71.4	70.73
SI	Slovenia	19.9	3.0	77.1	266	30.2	4.7	65.1	59.68
SK	Slovakia	14.7	7.7	77.6	675	30.8	1.9	67.3	49.49
UK	UK	24.9	22.5	52.6	1199	37.3	28.4	34.2	34.82
TR	Turkey	56.2	6.6	37.2	1973	72.8	3.2	24.0	6.57
HR	Croatia	30.4	5.1	64.6	632	34.4	0.0	65.6	45.79
MK	FYR Macedonia	35.7	9.1	55.2	1013	27.3	12.7	60.0	57.5
XK	Kosovo	38.1	10.2	51.7	884	46.6	16.1	37.3	61.51
RS	Serbia	39.7	6.4	53.9	941	30.3	13.1	56.6	35.29
ME	Montenegro	45.5	5.9	48.6	954	56.0	10.4	33.6	54.22
IS	Iceland	11.7	7.4	80.9	309	21.2	0.0	78.8	79.25

Table A.I.6: Differences in employment between carers and non-carers – 45–64 age group

Country code	Country	45–64							
		Non-carers				Carers			
		% not working	% part-time	% full-time	Total N	% not working	% part-time	% full-time	Total N
AT	Austria	38.7	15.9	45.4	586	48.2	19.4	32.4	139
BE	Belgium	49.9	11.5	38.6	565	42.5	19.7	37.8	193
BG	Bulgaria	46.1	3.3	50.6	551	34.3	1.7	64.0	175
CY	Cyprus	52.6	4.9	42.5	897	53.2	13.7	33.1	139
CZ	Czech Republic	31.0	9.1	60.0	552	24.4	11.9	63.8	160
DE	Germany	37.2	16.0	46.8	1652	41.4	13.0	45.6	261
DK	Denmark	26.4	8.5	65.2	663	30.6	5.6	63.9	72
EE	Estonia	41.3	5.6	53.0	462	47.8	8.7	43.5	138
EL	Greece	50.6	9.0	40.5	546	70.4	8.5	21.1	142
ES	Spain	50.9	8.5	40.6	790	53.4	8.0	38.6	249
FI	Finland	27.6	7.0	65.4	489	29.8	4.8	65.5	168
FR	France	40.0	7.6	52.4	1135	33.6	12.2	54.2	360
HU	Hungary	54.1	4.7	41.2	255	40.7	7.4	51.9	81
IE	Ireland	45.9	18.6	35.5	558	43.7	26.7	29.6	206
IT	Italy	45.6	10.4	44.0	1360	53.9	12.3	33.8	659
LT	Lithuania	40.5	6.3	53.2	506	42.3	8.5	49.3	213
LU	Luxembourg	39.4	14.2	46.4	647	52.0	11.8	36.2	127
LV	Latvia	40.7	7.5	51.8	492	25.2	12.6	62.2	143
MT	Malta	56.1	5.8	38.1	278	61.5	3.9	34.6	78
NL	Netherlands	32.5	19.5	48.1	564	26.1	35.2	38.7	142
PL	Poland	55.6	3.7	40.8	1780	61.6	6.7	31.7	476
PT	Portugal	51.9	4.2	43.8	543	56.1	0.0	43.9	123
RO	Romania	62.4	5.8	31.8	990	67.2	5.2	27.6	232
SE	Sweden	22.5	12.7	64.8	284	19.5	9.8	70.7	41
SI	Slovenia	55.1	1.8	43.1	274	38.7	1.6	59.7	62
SK	Slovakia	42.4	3.9	53.7	719	41.9	8.6	49.5	198
UK	UK	34.5	17.0	48.5	1139	47.6	17.6	34.8	313
TR	Turkey	83.4	4.3	12.3	1129	90.3	3.1	6.6	289
HR	Croatia	49.9	2.8	47.3	615	51.7	2.6	45.8	273
MK	FYR Macedonia	54.4	5.0	40.6	788	40.0	2.5	57.5	160
XK	Kosovo	40.1	10.7	49.3	609	28.1	10.4	61.5	278
RS	Serbia	56.3	2.5	41.2	675	62.8	2.0	35.3	153
ME	Montenegro	55.9	5.6	38.5	540	43.4	2.4	54.2	83
IS	Iceland	16.0	9.3	74.7	281	9.4	11.3	79.3	106

Table A.I.7: Differences in employment between carers and non-carers – women of working age

Country code	Country	Women							
		Non-carers				Carers			
		% not working	% part-time	% full-time	Total N	% not working	% part-time	% full-time	Total N
AT	Austria	27.7	24.2	48.1	768	36.2	30.9	32.9	149
BE	Belgium	38.9	24.0	37.1	520	35.7	31.6	32.8	171
BG	Bulgaria	37.4	3.6	59.1	733	42.9	6.8	50.4	133
CY	Cyprus	54.4	7.5	38.1	959	47.2	18.0	34.8	161
CZ	Czech Republic	26.2	11.9	61.9	680	21.0	13.5	65.6	119
DE	Germany	37.0	27.0	36.0	1843	45.9	19.1	35.1	231
DK	Denmark	23.9	14.7	61.4	611	31.3	14.6	54.2	48
EE	Estonia	35.8	6.6	57.6	547	41.2	10.1	48.7	148
EL	Greece	54.3	12.8	32.9	705	62.9	11.8	25.3	178
ES	Spain	46.5	15.9	37.5	1055	61.0	8.4	30.7	251
FI	Finland	18.4	13.6	68.0	521	23.4	12.5	64.1	128
FR	France	34.1	15.7	50.2	1234	34.7	17.5	47.9	355
HU	Hungary	38.8	11.4	49.8	273	36.7	11.2	52.0	98
IE	Ireland	44.6	27.6	27.8	681	52.4	31.9	15.7	210
IT	Italy	47.5	15.4	37.1	1525	57.6	16.8	25.6	656
LT	Lithuania	34.1	7.6	58.4	555	39.0	11.0	50.0	246
LU	Luxembourg	32.8	27.2	40.0	738	50.0	29.3	20.7	116
LV	Latvia	35.2	7.9	56.9	596	28.0	13.1	58.9	168
MT	Malta	52.8	12.0	35.3	309	69.7	10.5	19.7	76
NL	Netherlands	31.7	42.4	25.9	549	33.8	47.3	18.9	148
PL	Poland	51.0	6.6	42.4	2005	54.5	6.5	39.0	556
PT	Portugal	44.4	4.9	50.7	631	53.4	4.6	42.0	131
RO	Romania	51.8	6.1	42.2	1070	65.4	6.9	27.7	292
SE	Sweden	18.2	16.9	64.9	302	11.8	17.7	70.6	34
SI	Slovenia	38.4	1.9	59.8	266	32.8	1.6	65.6	61
SK	Slovakia	34.0	8.0	58.0	760	39.6	7.3	53.2	220
UK	UK	34.0	30.4	35.6	1230	42.7	27.3	30.0	330
TR	Turkey	87.4	2.4	10.2	1728	93.6	0.6	5.8	640
HR	Croatia	42.4	4.9	52.7	719	46.0	1.0	53.0	313
MK	FYR Macedonia	52.9	6.4	40.7	889	45.2	7.9	46.9	177
XK	Kosovo	58.8	6.9	34.3	539	64.6	12.5	22.8	359
RS	Serbia	55.1	3.4	41.5	872	51.6	10.3	38.1	155
ME	Montenegro	56.1	5.9	38.0	827	53.0	8.3	38.6	132
IS	Iceland	17.6	11.5	70.9	330	15.5	10.7	73.8	84

Table A.I.8: Differences in employment between carers and non-carers – men of working age

Country code	Country	Men							
		Non-carers				Carers			
		% not working	% part-time	% full-time	Total N	% not working	% part-time	% full-time	Total N
AT	Austria	20.2	4.4	75.4	529	47.2	0.0	52.8	53
BE	Belgium	31.4	5.3	63.3	583	40.6	9.4	50.0	96
BG	Bulgaria	33.1	4.3	62.6	463	30.3	2.0	67.7	99
CY	Cyprus	28.5	4.5	67.0	618	50.0	19.4	30.6	36
CZ	Czech Republic	14.5	5.2	80.3	656	25.2	12.2	62.6	107
DE	Germany	25.5	2.2	72.3	1302	27.5	3.8	68.7	131
DK	Denmark	22.4	3.3	74.3	522	17.7	3.9	78.4	51
EE	Estonia	29.8	2.1	68.1	420	46.3	6.0	47.8	67
EL	Greece	34.2	6.3	59.5	617	43.2	2.3	54.6	44
ES	Spain	38.6	7.7	53.7	849	47.7	7.6	44.7	132
FI	Finland	20.4	7.3	72.3	426	22.3	1.9	75.7	103
FR	France	25.2	4.0	70.8	1117	23.1	6.7	70.2	268
HU	Hungary	35.6	2.7	61.7	256	39.6	4.2	56.3	48
IE	Ireland	35.0	6.5	58.5	554	32.0	8.0	60.0	125
IT	Italy	23.0	6.1	71.0	1124	30.7	11.3	58.0	283
LT	Lithuania	30.5	3.5	66.1	492	43.6	5.7	50.8	124
LU	Luxembourg	25.4	5.0	69.5	637	30.7	1.1	68.2	88
LV	Latvia	29.5	5.9	64.6	421	23.9	5.6	70.4	71
MT	Malta	21.2	5.1	73.7	312	18.2	3.0	78.8	33
NL	Netherlands	18.3	8.5	73.2	579	14.5	14.5	71.0	69
PL	Poland	34.4	3.7	61.9	1473	44.3	4.6	51.1	237
PT	Portugal	31.9	4.5	63.6	517	28.6	0.0	71.4	63
RO	Romania	41.2	7.5	51.3	1007	35.7	3.6	60.7	140
SE	Sweden	18.2	11.1	70.7	297	25.0	3.6	71.4	28
SI	Slovenia	37.2	2.9	59.9	274	38.6	4.6	56.8	44
SK	Slovakia	23.0	3.0	74.0	634	34.2	3.7	62.2	82
UK	UK	24.6	8.1	67.2	1108	44.2	13.9	41.8	208
TR	Turkey	39.3	10.0	50.7	1374	34.7	10.7	54.6	216
HR	Croatia	36.7	2.7	60.6	528	43.1	3.3	53.7	123
MK	FYR Macedonia	35.2	8.1	56.7	912	15.1	4.3	80.7	93
XK	Kosovo	27.7	12.4	60.0	954	22.7	15.5	61.9	485
RS	Serbia	36.8	6.3	56.9	744	47.4	0.0	52.6	97
ME	Montenegro	40.8	5.6	53.7	667	47.4	5.3	47.4	76
IS	Iceland	8.9	4.2	86.9	260	7.3	5.5	87.3	55

Annex II: SHARE results

Table A.II.1: Odds ratios for self-reported health by country (care given outside the household)

	Self-reported health	
Country	**Odds ratio**	**Standard error**
Austria	0.83	0.11
Germany	0.73	0.17
Sweden	0.99	0.77
Netherlands	**0.66****	0.10
Spain	1.06	0.19
Italy	0.82	0.20
France	0.77	0.11
Denmark	1.09	0.16
Belgium	**0.72***	0.10
Czech Republic	1.07	0.16
Poland	**0.60****	0.11
Hungary	1.02	0.29
Portugal	0.45	0.21
Slovenia	0.73	0.12
Estonia	**0.58*****	0.06

Notes: N varies.
**p<0.05, **p<0.01, ***p<0.001.*
Respondent's self-reported health: 1 (excellent) to 5 (poor).

Table A.II.2: Odds ratios for suicidal thoughts and fatigue (all countries) (all variables)

	Suicidal thoughts		Fatigue	
	Odds ratio	**Standard error**	**Odds ratio**	**Standard error**
Care given inside household	**1.89****	0.41	**1.80*****	0.27
Care given outside household	0.94	0.14	0.99	0.10
Professional care in the social network	2.24	0.93	1.60	0.66
Siblings in social network	0.96	0.17	**1.23***	0.13
Income (log)	**0.80*****	0.04	**0.89****	0.03
Female	**1.71*****	0.25	**1.90*****	0.17
Age 60–70	1.05	0.17	**1.12*****	0.11
Age 70–80	1.19	0.23	**2.34*****	0.31
Age 80+	**2.36***	1.00	3.34	0.88

Notes: N=14,576.
**p<0.05, **p<0.01, ***p<0.001.*
Suicidal thoughts and fatigue: 1 (yes) or 0 (no).

Table A.II.3: Odds ratios for troubled sleep and lack of concentration (all countries) (all variables)

	Troubled sleep		Lack of concentration	
	Odds ratio	**Standard error**	**Odds ratio**	**Standard error**
Care given inside household	**1.75****	0.24	**1.56***	0.34
Care given outside household	1.17	0.12	0.89	0.15
Professional care in the social network	1.61	0.60	1.25	0.63
Siblings in social network	1.21	0.13	**0.61****	0.10
Income (log)	0.98	0.03	0.94	0.04
Female	**2.20*****	0.21	**1.38***	0.19
Age 60–70	**1.31****	0.13	**1.56*****	0.23
Age 70–80	1.29	0.18	**2.23*****	0.43
Age 80+	**2.05****	0.54	**3.94*****	1.15

Notes: N=14,576.
**p<0.05, **p<0.01, ***p<0.001.*
Troubled sleep and lack of concentration: 1 (yes) or 0 (no).

Table A.II.4: Odds ratios for depression (by country) (care given inside the household)

	Depression	
	Odds ratio	**Standard error**
Austria	**1.76***	0.43
Germany	**2.21***	0.84
Sweden	1.44	0.53
Netherlands	0.84	0.63
Spain	**0.71***	0.44
Italy	1.44	0.47
France	1.35	0.43
Denmark	1.59	0.59
Belgium	1.59	0.43
Czech Republic	**2.39*****	0.62
Poland	1.47	0.47
Hungary	1.65	0 .56
Portugal	2.61	1.26
Slovenia	**3.31*****	1.14
Estonia	**1.76****	0.36

*Notes: *p<0.05, **p<0.01, ***p<0.001. N varies.*
Depression: 1 (yes) or 0 (no).