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Original Article

Unequal Inequalities: The Stratification of the Use of Formal Care Among Older Europeans

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Abstract

Objectives: The general aim of the article is to incorporate the stratification perspective into the study of (long-term) care systems. In particular, 3 issues are investigated: the extents to which (a) personal and family resources influence the likelihood of using formal care in later life; (b) the unequal access to formal care is mediated by differences in the availability of informal support; (c) the relationship between individuals' resources and the use of formal care in old age varies across care regimes and is related to the institutional design of long-term care policies.
Method: Data from Waves 1 and 2 of the Survey of Health, Ageing and Retirement in Europe for 4 countries: Denmark, Germany, France, and Italy, and population aged at least 65 (N = 9,824) were used. Population-averaged logit models were used.
Results: Logit models revealed that in terms of access to formal care: an individual's educational level plays a limited role; family networks function similarly across the countries studied; in general, financial wealth does not have a significant effect; there is a positive relation between income and the use of formal care in Germany and Italy, and no significant relation in France and Denmark; home ownership has a negative effect in Germany and Denmark. On accounting for informal care, inequality associated with individuals' economic resources remains substantially unaltered.
Discussion: The study shows that care systems based on services provision grant higher access to formal care and create lower inequalities. Moreover, countries where cash-for-care programs and family responsibilities are more important register inequalities in the use of formal care. Access to informal care does not mediate the distribution of formal care.

Keywords: Aging—Care regimes—Europe—Formal care—Inequality—Long-term care

In recent decades, the aging process has increasingly shaped European societies, and long-term care (LTC) has become one of the main "new" social risks that welfare systems must face (Taylor-Gooby, 2004). Of course, becoming older and frail is nothing "new"; however, some of the characteristics of the phenomenon make it particularly challenging for the equilibriums at the basis of the welfare state and the European social model (Herlofston & Hagestad, 2011). Firstly, the extent and pace of the phenomenon is unprecedented: individuals aged 65 years and older represented just 12.8% of the EU-27 population in the mid-1980s, but in 2012, their proportion had grown to more than 18% of the population. Furthermore, in the same period, the share of individuals aged 80 years and older almost doubled, that is, increasing from 2.6% to 5.1%. Secondly, although the increase in the older population has not always (and everywhere) translated into a corresponding increase in the number of individuals with disabilities, a series of studies suggests that there is no clear trend toward a compression of morbidity (Crimmins & Beltrán-Sánchez, 2010;

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Lafortune & Balestat, 2007; Colombo et al., 2011). Finally, the process of population aging and the rise in care needs of the older population are taking place when there is a simultaneous decrease in the availability of unpaid care givers—due to both decreasing fertility and increasing female labor market participation—and growing pressure on the financial sustainability of public welfare and constraints on the expansion of public welfare provision (Bettio, Simonazzi, & Villa, 2006).

Faced with this challenge, the European welfare states have undertaken major reforms of their LTC systems. On the one hand, investments in policies of this type have increased. On the other hand, governments have sought to curb ever-growing LTC expenditure (Ranci & Pavolini, 2013). The practical and organizational conditions of care provision have become less expensive in many European countries because of the decline in the professional quality of LTC and the partial refamilialization of care. The former process has been the result of a more underskilled labor force, standardization of care delivery, and a consumerist approach, with the consequent reduction in the discretionality and autonomy of social workers (Brennan, Cass, Himmelweit, & Szebehely, 2012; Morel, 2007). The latter process has shifted the burden of LTC services delivery from the state to the family—and the services that families can acquire on the market (Pfau-Effinger, Flaquer, & Jensen, 2009; Pfau-Effinger and Rostgaard, 2011)—by increasing the focus on home care and cash-for-care programs. However, these common trajectories in the transformation of LTC policies have taken place from very different starting points in different countries (Pavolini & Ranci, 2008).

The challenge of population aging and rising LTC needs, matched by the simultaneous transformation of the European welfare systems, are likely to have major consequences in terms of unequal access to formal and informal care for older Europeans. Thus, for instance, shifting the burden of LTC services provision to the family may have been to the disadvantage of those elderly persons who have weak family networks. The growing importance of cash-for-care programs and the marketization of care may have exacerbated inequalities in the use of formal services among elderly persons from different social classes. On the other hand, this trend may have been partially offset by the establishment of a low-cost service market.

The recent scientific literature on the consequences of European population aging and welfare restructuring has mainly focused on the dimension of the refamilialization of LTC services provision, whereas relatively little attention has been paid to the consequences that these processes have on the (de)commodification of care and the socioeconomic stratification of access to LTC services in later life. Our aim in the present article is to start filling this gap. Thus, our first goal is to explore the extent to which personal and family resources—that is, education, income, wealth, and family networks—influence the likelihood of formal care being used in later life. These four different variables represent four different dimensions along which inequality in the use of formal care is structured: (a) Income is clearly an important resource for an individual to be able to buy care services on the market. The more income an individual has, the more easily s/he can access the market to meet his/her care needs. Furthermore, we expect that this positive relation also holds in those countries where LTC policies are mainly based on a cash-for-care logic, with transfers that are not sufficiently generous to cover the full costs of buying care services on the regular market, and in which the criteria for allocation of public transfers are based only on the individual's need and not on means testing. Differently, in those systems where public services are delivered on the basis of individual's economic resources—giving priority to the less affluent population—it can be expected that people at the top of the income distribution scale are less likely to access public LTC services. (b) As regards wealth, we assume that financial wealth can be easily mobilized to buy care services; at the same time it may also have a negative impact on the likelihood of accessing public services if these are delivered on the basis of means testing criteria. Thus, the effect of financial wealth should be similar to that of individual's income. Differently, we expect that real wealth (e.g., houses, land)—which cannot be easily mobilized to buy care services on the market—has mainly a negative effect on the possibility of accessing public services because of means testing. (c) Education may be crucial when the procedures to access public care are particularly complex: a characteristic that is more common in those LTC systems with some type of means testing and time-demanding procedures to assess individual's care needs. Higher educational levels should lead to higher chances of accessing public care. (d) Finally, care by a coresident partner or child may be an alternative to the use of formal care. This is more likely to happen in those countries in which care policies are more familialized and, furthermore, cultural traditions assign a more important role to the family in providing care support to older members. Research on the Italian case, for instance, has shown that childless individuals are more likely to use formal care than are parents (Albertini & Mencarini, 2014).

A second goal of the article is to assess the extent to which inequalities in formal care services utilization are mediated by the unequal distribution of informal care. Accordingly, the relation between individual's resources and the use of formal care will be analyzed while controlling for access to informal care. Next, by considering the cases of four different European countries—Denmark, France, Germany, and Italy—we shall explore the extent to which different care and welfare system arrangements influence the relationship between individual's resources and the use of LTC in old age. In particular, the goal is to explore whether the institutional design of LTC policies, distinguishing between cash-for-care systems and services-based ones, is related to the presence and the structure of inequalities.

Public LTC Systems, Care Regimes, and the Characteristics of the Four Countries Studied

If we want to understand the relationship between LTC policies and inequality in the access to formal care, we must consider how the interplay among the state, households, and the market functions. The concept of care regime is useful in this regard: its origins can be traced back to early feminist criticisms of the mainstream literature on welfare regimes (Esping-Andersen, 1999; Lewis, 1992; O'Connor, 1993; Orloff, 1993). The concept has been used in order to attract scholars' attention to the nexus between the family and the state. Since the early studies, the literature on care regimes has flourished and advanced in many respects. As a result, a number of different typologies of care regimes have been proposed in the literature (Alber, 1995; Anttonen & Sipilä, 1996; Bettio & Plantega, 2004; Daly & Lewis, 1998; Jensen, 2008; Leitner, 2003; Lyon & Glucksmann, 2008; Rauch, 2007; Rostgaard, 2002; Sarasa & Billingsley, 2008; Saraceno & Keck, 2011). The countries chosen in this study represent different types of Western European care regimes.

All the countries considered grant older people universal access to basic health care services. It is generally assumed that older people's health-related needs require professional services that can neither be delivered by the family nor can they be (entirely) purchased on the market by those who need them. On the other hand, there are major differences across the four countries considered regarding the services that are not included in the narrow area of (acute) health care. In particular, in the area of LTC policies not only do models of services' organization vary widely but there are also marked differences in the amount and type of support (cash allowances and/or services) granted by the state or delivered by the family, and in the extent to which the latter's support is formally recognized by the welfare system (Leitner, 2003; Pavolini & Ranci, 2008; Saraceno & Keck, 2011; Simonazzi, 2009; Theobald, 2005). Moreover, the role of the informal care support provided to older persons by family members, neighbors, or friends varies considerably across the four countries considered (Albertini, Kohli, & Vogel, 2007). Furthermore, the institutional design, coverage, and intensity of public support provision influence the extent to which households resort to the market.

Table 1 summarizes the differences in the institutional designs of LTC policies and the levels of coverage. It also provides information on the intensity of informal care and the normative basis for care in the four countries considered. We expect that these different institutional designs give rise to major differences in the stratification of the use of formal support among the frail elderly population, even when controlling for informal support provision.

Among the four countries considered, Denmark is the one that most closely resembles the ideal type of a strongly defamilialized and decommodified welfare and LTC system. Public provision of LTC to elderly persons is relatively generous (4.5% of Denmark's gross domestic product [GDP] goes to public spending on LTC) (Burau & Dahl, 2013; EC, 2012), and public support is provided mainly on the basis of individuals' needs (universalistic approach) and through care services: individuals' income levels or the availability of informal care are not important factors in access to provision—although in the case of residential care there are co-payments related to income. Publicly provided home and residential care cover more than 25% of the 65+ population: such a high level of provision means that not only severe disability cases receive support from the state but also moderate ones. On the other hand, cash-for-care programs—that usually shift part of the burden of LTC services provision to families (or the private market)—are relatively scarce. Inspection of patterns of exchange of informal support shows that the proportion of Danish elderly families receiving unpaid social support from individuals outside the household is the highest among the four countries considered. At the same time, the intensity of informal support is the lowest, and so too is the likelihood of receiving the most time-demanding form of social support: help with personal care (Albertini et al., 2007; Brandt, Haberkern, & Szydlik, 2009). This is in line with what Danes think is the most appropriate way to deal with the LTC needs of the elderly population.

We expect that the outcome of the highly universal and defamilialized Danish care regime is that individuals gain access to formal care almost independently from their own individual resources.

Both the welfare and LTC system of Italy are very different from the Danish one. Total public spending on LTC as a percentage of GDP was equal to 1.9% in 2008, considerably lower than in Denmark but close to the EU-27 average (1.8%) (EC, 2012). Most importantly, it is the institutional design of the Italian LTC system that differs from the Danish one. Familialism by default is the main approach to care and LTC public policy (Leitner, 2003; Saraceno & Keck, 2011). Moreover, because the Italian LTC system works mainly through cash-for-care programs, the degree of commodification of the well-being of frail older individuals is relatively high. Overall, around 11% of the elderly population is covered by LTC programs, but coverage comes mainly from care allowances. Residential and home care cover less than 5% of the elderly population, whereas the so-called "Companion Attendance Allowance" (CAA) is provided to around 11% of individuals aged 65 or older. The CAA works on a universal basis, although only severe cases of disability have access to the program, and the amount of financial resources provided is relatively scant (Costa, 2013; Simonazzi, 2009). By contrast, access to services is strongly related not only to individuals' needs but also to their income. The likelihood that older individuals receive informal social support is the lowest among the four countries considered. However, both the intensity of the support provided and the likelihood of receiving help with personal care is the highest (Albertini et al., 2007; Brandt et al. 2009). Furthermore, to be noted

Table 1. The Four Care Regimes: A Comparative View on Denmark, France, Germany, and Italy

	Denmark	France	Germany	Italy
Design and functioning of public LTC				
Total public spending on LTC as % of GDP	4.5	2.2	1.4	1.9
Coverage (65+ population) of cash and care programs	High	Medium	Medium	Medium
Coverage (65+ population) only of care programs	High	Medium	Medium-to-low	Low
Coverage (65+ population) only of cash/care allowances	Low	Low	Medium-to-low	Medium
Eligibility criteria to access provision (apart from care needs)	Only care needs in home care; Income[a] in residential care	Income[a]	Only care needs	Income[a] for services; Only care needs for care allowances
Presence of a formal national classification of beneficiaries (and resources provided to them) depending on their care needs' level	No	Yes (four levels)	Yes (three levels)	No
Functioning of informal social support				
Informal social support: quota of families receiving it	+++	++	++	+
Informal social support: intensity of informal support provided/likelihood of receiving support with personal care	+	++	++	+++
In case elderly parents become frail, the best option would be they should live with their children (% agree)	7%	18%	25%	28%
In case elderly parents become frail, the best option would be public or private service providers should visit their home and provide them with appropriate help and care or parents should be put in nursing home (% agree)	72%	58%	35%	37%
In case elderly parents become frail, children should care even sacrificing their career (% agree)	18%	17%	35%	48%

Notes: GDP = gross domestic product; LTC = long-term care. Data source: Saraceno and Keck (2011), Carrera et al. (2013), Eurobarometer (2007), Albertini et al. (2007), Brandt et al. (2009), Colombo et al. (2011), EC (2012).

[a]Income of the potential beneficiary is relevant in terms of defining the amount of co-payments beneficiaries themselves are supposed to provide and not simply in terms of being not eligible to enter public provision.

is that intergenerational coresidence is often used as a support strategy (Albertini & Kohli, 2013; Isengard & Szydlik, 2012). Again, this is in line with the Eurobarometer data on individuals' beliefs concerning care support obligations. A further major characteristic of the Italian care regime is the importance of the "migrant care (gray) market" (Bettio et al., 2006).

Expectations about the stratification of formal care in Italy are mixed. On the one hand, the scarce and strongly means tested access to care services indicates a negative effect of individuals' economic resources on the likelihood of receiving public support: that is, the poorer an elderly person is, the more likely s/he is to qualify for public schemes. On the other hand, the importance of cash-for-care programs and the migrant care market, and the relatively small amount of the CAA, suggest that more affluent individuals are more likely than poorer ones to purchase LTC services on the market. Thus, the inequality in the distribution of LTC services purchased on the market can potentially overcompensate the opposite bias in the distribution of the few public care services. Considering that the overall system is based more on cash allowances than services, we expect that the second mechanism (the centrality of cash-for-care programs) prevails over the first one (means testing in services provision).

Germany and France share a similar intermediate level of care provision, although the institutional design is partially different. The German LTC system resembles the Italian one to some extent. The familialization of the well-being of the frail elderly population is indeed important (Saraceno & Keck, 2011). However, since the Care Insurance reform of 1995, Germany has clearly opted for

a "supported familialism" approach (Theobald & Hampel, 2013). The resources allocated to LTC policies have been strongly increased over the past two decades (Carrera, Pavolini, Ranci, & Sabbatini, 2013), but this budget is spent in order to furnish an intermediate level of residential and home care, matched by the freedom to opt for cash allowances. Around 68% of beneficiaries living at home opt to receive cash allowances instead of using care services (Federal Statistical Office, 2013). Overall, the approach is universalistic (the main criterion for accessing benefits is the level of needs, whereas neither income level nor availability of informal care are relevant to entitlement to benefits) and based on a mix of services and care allowances. Differently from the Italian case, the amounts of resources provided to beneficiaries vary according to the individual's care needs: the German system divides beneficiaries into three categories. In terms of exchange and intensity of informal support, Germany falls somewhere in between the two extremes of Italy and Denmark. Also cultural preferences and opinions in relation to care are quite similar to the Italian situation, with a partial exception: in comparison with Italians, fewer Germans are in favor of the idea that children should sacrifice their careers in order to care for their parents.

The universalistic approach and the intermediate level of public services provision might suggest that formal care provision is weakly stratified in Germany. However, the extremely high proportion of German frail older persons who opt to receive cash allowances instead of public services suggests that services purchased on the market play an important role in shaping the individual care mix, and this, in turn, might make it possible to observe marked inequalities in the likelihood of using formal LTC services in later life.

In France, the amount of resources devoted to public LTC policies is quite similar to the level recorded in Italy: 2.2% of the GDP (EC, 2012). France has chosen a path that we may term "weak defamilialization," and it has adopted a model where cash allowances practically do not exist: the main program, the Allocation Personnalisée d'Autonomie (APA), provides a benefit paid to finance a specific care package decided by a team of professionals—and not freely chosen by the family—on the basis of the care needs of the beneficiary, the type of informal support available, and the beneficiary's income (as in the German case, beneficiaries are divided into different categories of care needs: four in the French case). Thus, differently from the German and Danish LTC programs, the APA works on the basis of a "selective universalistic system": when the amount of resources given to each beneficiary is calculated, besides his/her health status also the personal economic resources of the beneficiary are taken into account (Le Bihan & Martin, 2013). The result is that public help is more targeted on persons who, with similar levels of care need, are less well-off. In regard to opinions and public preferences, France stands in between Germany and Italy on the one hand, and Denmark on the other. As far as informal support is concerned, France is much more similar to the German case than to the Italian or Danish ones—although the Eurobarometer data suggest that attitudes of French people regarding informal support to elderly persons are closer to those of Danish citizens (Albertini et al., 2007).

The important role of means testing and, simultaneously, the strong bias in favor of services provision—instead of cash-for-care programs—suggest that there may be a negative effect of individuals' economic resources on the likelihood of using public care services, which is not necessarily offset by the fact that more affluent people have more chances of acquiring care services from the market.

Table 2 synthesizes our main hypotheses for each country on the expected level of stratification.

Method

Data and Sample

The empirical analyses presented subsequently were based on data from the Survey of Health, Ageing and Retirement

Table 2. Hypotheses on the Relationship Between Care Regimes and Inequality

	General level of stratification expected	Mechanisms
Denmark	Low	Highly universalistic (services) provision and defamilialized policies should allow individuals to access to formal care almost independently from their own resources
France	Low	The strong bias toward services and a very targeted distribution system should foster a low level of inequality
Germany	Not clear	The universalistic approach and the intermediate level of public services provision should foster destratification; however, the spread diffusion of cash allowances might work in the other direction
Italy	Medium-to-high	The relevance of cash-for-care programs, characterized by limited generosity, and the scarce diffusion of services make more likely more affluent elderly individuals than poorer ones to access LTC services on the market

Note: LTC = long-term care.

in Europe (SHARE). SHARE is a longitudinal, cross-national survey representative of the population aged 50 and older. It contains detailed information on the social, economic, and health situation of the individuals interviewed. SHARE gathers information on the formal and informal care received during the 12 months before each interview. This article employs data from the first two regular waves of the survey, which took place, respectively, in 2004 and 2007. Data from the third wave could not be employed because one of the key dependent variables utilized in this study was not collected. In particular, we analyzed data collected in four countries: Denmark, France, Germany, and Italy. Moreover, we only considered individuals aged 65 and older, and consequently a subsample of the SHARE respondents more likely to be in need of care support. This left us with a sample of 7,019 individuals, whereas the total number of observations, that is, individual-year, was equal to 9,824. The main characteristics of the sample are reported in Table 3.

Dependent Variables

Generally speaking, the increasing utilization of schemes of income support or insurance allowances to pay for family carers is making it more difficult to draw a clear distinction between formal care provided by public and private institutions and unpaid informal care (mainly) provided by the family. In this article, formal support includes professional or paid help received from outside the household, and stays in nursing homes. This definition includes both care received from public institutions and care purchased on the market. Specifically, to measure formal support utilization, a dummy variable was created taking value 1 if the interviewee had been in a nursing home or had received professional or paid home care in the 12 months prior to the interview.

Main Independent Variables

Individuals' economic resources were measured as their position in the national distribution of household equivalent incomes (equivalence scale was the square root of the number of household members) and per capita net household financial wealth among the elderly population. Net financial wealth was defined as the sum of interest income from bank accounts and bonds, dividends from stock or shares and mutual funds, retirement accounts, contractual savings for housing, and life insurance, minus debts. To better identify nonlinear relations between individuals' economic resources and formal support utilization, we introduced a dummy for each income and wealth quintile. Furthermore, to account for an individual's real wealth, we focused on the wealth incorporated in ownership of the home of residence. Thus, we introduced a dummy variable accounting for individual's home ownership. Clearly, the three variables are positively related. The correlation between home ownership and income and financial wealth is quite similar in Germany, France, and Denmark, whereas it tends to be slightly lower in Italy. The correlation between equivalent household income and per capita household financial wealth is also similar across the four countries considered, with the lower level being registered in France. In general, however, there were no problems of collinearity between these variables in our statistical models.

Table 3. Sample Characteristics (Individual-Year, *N* = 9,824)

Variable	%
Female	54.3
Education	
Low (ISCED 0, 1, 2)	54.63
Intermediate (ISCED 3, 4)	30.78
High (ISCED 5, 6)	14.59
Lives alone (i.e., without a coresiding partner)	32.98
Has at least one child living in same household or building	21.20
Has children (all of them) living outside household/building	67.40
Childless	11.40
Has not any limitation with ADL	84.19
Has not any limitation with IADL	76.19
Home owner	75.59
Receives formal care	15.22
Receives informal support with personal care from outside the household	3.16
Receives informal support with practical household help or paperwork from outside the household	22.16
Receives informal support with personal care from inside the household	6.28
Resides in Denmark	18.42
Resides in France	27.26
Resides in Germany	26.70
Resides in Italy	27.63
	Mean (*SD*) – median
Number of ADL limitations among those who have at least one	2.26 (1.61) – 2
Number of IADL limitations among those who have at least one	2.51 (1.89) – 2
Equivalent household income (in purchasing power parities)	21,073 (21,887) – 15,452
Net per capita financial household wealth (in purchasing power parities)	21,407 (70,781) – 5,099

Notes: ADL = activities of daily living; IADL = instrumental activities of daily living; ISCED = International Standard Classification of Education.

The human capital of the respondents was measured using the highest educational level that they had obtained.

We distinguished three educational levels: low (corresponding to the values 0, 1, and 2 of the International Standard Classification of Education [ISCED]); intermediate (ISCED 3 and 4); high (ISCED 5 and 6).

Next, because we wanted to assess the importance of family networks in accessing formal and informal care, we introduced a series of dummy variables that enabled us to identify (a) respondents who coresided with a partner, (b) those who had at least one living child, and (c) parents who had (at least) one child living in the same household or building.

Health status is a key determinant of care services utilization: not only because individuals in poor health are more likely to need personal care but also because the eligibility for public LTC services is often based on an individual's objective health conditions. Thus, respondent's health status was introduced as a controlling variable in our analyses. In particular, we considered the number of an individual's limitations in activities of daily living (ADL) and instrumental activities of daily living (IADL).

Finally, the relation between individual's resources and the use of formal care was controlled for recourse to informal care. In this article, informal support is defined as unpaid help with personal care, practical household help, and help with paperwork received by the elderly person (or his/her coresiding partner) from someone living outside the household. We distinguished these different types of support into two categories: (a) support with personal care and (b) support with household chores or paperwork. Furthermore, SHARE respondents were also asked if, during the past year, someone within the household had helped them regularly (i.e., on a daily basis for at least 3 months) with personal care. We included this information among our controlling independent variables. Clearly, it can also be argued that having a coresiding partner or adult child does represent a good proxy for the availability of informal support within the household.

Analytical Strategy

The empirical analyses were carried out on the unbalanced sample of individuals taking part in at least one of the first two regular waves of the SHARE. In particular, population-averaged logit models were utilized. In the first step of the analyses, we assessed the role of individual's resources in the likelihood of receiving formal care in old age. The relation was controlled for by the respondent's age, gender, and health status (i.e., the number of limitations with ADL and IADL). In the second step, we introduced three variables to account for individual's recourse to informal support. As a matter of fact, to the extent that informal care is a substitute for formal care (or vice versa), we should find a negative relation between the two sources of support. Next, if this was the case, the correlation between individual's resources and the use of formal care could disappear, or become smoother, once we controlled for the receipt of informal support.

In order to explore between-countries differences, because micro-level social mechanisms regulating access to formal and informal care can vary from one country to another, we ran the analysis separately on data from each of the four countries considered.

Results

Overall, 17.8% of individuals in the sample had received formal care during the observation period. The likelihood of receiving professional care, however, varied considerably across the four countries (Table 4). France stands out with one third of the respondents receiving care from public institutions or the market. Denmark comes next in the ranking: elderly persons receiving formal care constitute about 23% of the population aged 65 years or older. The quota of beneficiaries of formal support plunges when we move to the other two countries: both in Germany and Italy less than 10% of the elderly population reports having received care services from the state or the market. This pattern is not unexpected, however. In fact, as suggested earlier (see Table 1), not only are France and Denmark the two countries with the highest coverage rates of LTC programs but they also have systems that rely quite heavily on services provision, whereas cash programs are more common in Italy and Germany.

In line with previous studies on the intergenerational exchange of support (Brandt et al., 2009), we find that the likelihood of receiving informal personal care follows a pattern opposite to the one observed for formal care, that is, the highest levels are registered in Italy, followed by Germany, France, and Denmark. Between-countries differences, however, are quite small. A similar pattern is to be found for the exchange of informal help with personal care

Table 4. Percentage of Individuals Receiving Formal and Informal Care (at Least Once) During the Observation Period, by Country

	Denmark	France	Germany	Italy
Receiving formal care	23.23	33.06	9.17	8.42
Receiving informal support with personal care from someone outside the household	1.82	3.86	4.76	5.06
Receiving informal support with household chores and paperwork from someone outside the household	33.26	26.23	33.59	17.56
Receiving informal support with personal care from someone inside the household	4.02	6.89	7.63	11.62

within the household. Finally, when we focus on types of support that are usually less time-demanding (i.e., household chores and paperwork), we find that the quota of respondents who had received this help was considerably higher in Germany and Denmark than in France and Italy.

These data suggest that the French and Danish LTC systems are those that grant the highest likelihood of receiving formal care to the frail elderly population. Our main research questions, however, concerned stratification: do these four systems grant similar access to LTC services to individuals endowed with different levels of income, wealth, education, and family networks? If not, to what extent do these four systems differ from the point of view of the inequality of the distribution of formal care?

Education

The results of the multivariate analyses (Table 5, Model 1) indicate that, in general, educational level does not play a major role in determining the likelihood of using formal care in three of the countries considered. None of the coefficients reaches the 5% significance level in Germany and France. In Italy, individuals with intermediate educational levels have higher probabilities of using formal care services. In Denmark, higher human capital is associated with a lower likelihood of receiving formal care services.

Income

As argued earlier, the role of household income in accessing formal care can be substantial in those systems characterized by a weak provision of public LTC services, or which are mainly based on cash transfers to the needy older persons. The results of our analyses confirm this hypothesis. In Italy and Germany, the positive effect of income on the likelihood of receiving formal care is quite clear, and it increases progressively along the income distribution. Differently, the data suggest that both in France and Denmark the relation between household income and formal care provision is not significant.

Wealth

It was suggested earlier that wealth may have an ambiguous role in shaping the distribution of formal care. On the one hand, due to the means testing access criteria of most LTC programs, higher financial capital can prevent individuals from using public care services. On the other hand, similarly to income, it can be hypothesized that those elderly persons with greater financial resources can more easily mobilize them in order to buy care services from the market. The results of our regression Model 1, reported in Table 5, indicate that in most cases the two opposite mechanisms are absent or compensate for each other. In Italy and France, the coefficients are not significant and their sign does not vary consistently along the distribution. In Germany and Denmark, there seems to be a negative relation between the amount of per capita household financial wealth and the likelihood of receiving formal support. However, this relation reaches the 10% or 5% significance level only for those individuals located at the top of the distribution. Furthermore, in those two countries home ownership is negatively associated with receiving formal care support. This latter result is surprising because both Germany and Denmark are characterized by a universal approach to the delivery of public care LTC services. Hence, it could be expected that means testing on real wealth does not play a role.

Family

The effect of the presence of family networks is similar across all the countries considered—the only exception being the role of partnership status in Italy. In line with recent research on the topic, we find that childless persons and individuals without a coresiding partner are more likely than others to use formal care services (Wenger, Dykstra, Tuula, & Knipscheer, 2007). Next, elderly people coresiding with an adult child are less likely to use formal support than are parents who do not have any of their children living with them. The specific design of the LTC systems in these four countries does not prevent people without family networks from accessing formal care services. On the contrary, European LTC systems seem to be specifically designed to provide higher accessibility to formal care to persons with fewer family resources.

Overall, these results indicate that there is a certain degree of (economic) stratification in the provision of formal care among the elderly population in those countries that rely more heavily on cash-for-care policies. In particular, when we consider the distribution of household income, we find that in Germany and Italy the more affluent are more likely to receive formal support. Differently, LTC systems that are mainly based on services provision tend to protect those individuals with fewer economic resources. In fact, both in Denmark and France income does not play a significant role. We also found that in Denmark and Germany older people located at the top of the wealth distribution and homeowners are less likely to access formal care.

In light of these results, one might wonder to what extent resorting to formal care is an alternative to informal care provision from family and friends. In other words, one might wonder whether in Germany and Italy more affluent people rely more heavily on formal support because they prefer this form of support to its informal counterpart and/or because they lack informal help from their families and friends. The results of our second regression model (Table 5) suggest that this substitution effect is absent.

In all of the four countries, informal support from outside the household—both help with personal care and other types of support—is positively related with the

Table 5. Population-Averaged Logit Models on the Likelihood of Receiving Formal Support, by Country

	Germany		Italy		France		Denmark	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Age	0.107*** (7.403)	0.094*** (6.301)	0.045*** (3.286)	0.043*** (3.172)	0.069*** (8.215)	0.062*** (7.286)	0.118*** (9.320)	0.117*** (9.191)
Female (ref. male)	0.296 (1.253)	0.216 (0.901)	0.227 (1.205)	0.206 (1.088)	−0.034 (−0.300)	−0.074 (−0.639)	0.033 (0.176)	0.031 (0.161)
Number of limitations with ADL	0.369*** (4.103)	0.361*** (3.805)	0.126 (1.577)	0.097 (1.202)	0.155** (2.276)	0.107 (1.542)	0.344*** (3.098)	0.339*** (2.967)
Number of limitations with IADL	0.297*** (3.937)	0.284*** (3.637)	0.324*** (4.970)	0.256*** (3.805)	0.392*** (7.925)	0.326*** (6.503)	0.630*** (8.060)	0.605*** (7.639)
Education (ref. low)								
Intermediate	0.176 (0.765)	0.178 (0.759)	0.649** (2.459)	0.693*** (2.615)	0.113 (0.814)	0.154 (1.093)	−0.359* (−1.842)	−0.347* (−1.774)
High	−0.228 (−0.673)	−0.308 (−0.879)	0.213 (0.456)	0.219 (0.476)	−0.349* (−1.797)	−0.257 (−1.316)	−0.581** (−2.398)	−0.592** (−2.417)
Income quintile (ref. I)								
II	0.403 (1.522)	0.427 (1.561)	0.527* (1.795)	0.466 (1.565)	−0.192 (−1.360)	−0.137 (−0.957)	0.021 (0.114)	0.057 (0.304)
III	0.500* (1.674)	0.503 (1.629)	0.672** (2.265)	0.632** (2.109)	0.045 (0.297)	0.090 (0.585)	0.326 (1.254)	0.338 (1.285)
IV	0.785** (2.323)	0.683* (1.941)	0.602* (1.945)	0.645** (2.058)	−0.241 (−1.424)	−0.203 (−1.180)	0.214 (0.551)	0.275 (0.704)
V	1.223*** (3.706)	1.176*** (3.482)	0.845*** (2.607)	0.904*** (2.776)	−0.286 (−1.567)	−0.253 (−1.363)	−0.134 (−0.312)	−0.060 (−0.139)
Financial wealth quintile (ref. I)								
II	−0.177 (−0.654)	−0.079 (−0.284)	0.023 (0.067)	0.062 (0.180)	0.103 (0.628)	0.089 (0.538)	−0.204 (−0.998)	−0.206 (−0.999)
III	−0.001 (−0.004)	0.045 (0.155)	0.016 (0.063)	0.032 (0.124)	−0.002 (−0.012)	0.039 (0.223)	−0.333 (−1.432)	−0.307 (−1.308)
IV	−0.016 (−0.053)	0.133 (0.428)	0.022 (0.084)	0.028 (0.108)	−0.014 (−0.079)	0.025 (0.140)	−0.425 (−1.570)	−0.372 (−1.362)
V	−0.689* (−1.851)	−0.587 (−1.515)	0.167 (0.649)	0.165 (0.633)	0.135 (0.741)	0.182 (0.986)	−0.590** (−1.980)	−0.524* (−1.751)
Home owner	−0.403** (−2.003)	−0.480** (−2.319)	−0.230 (−0.901)	−0.312 (−1.210)	−0.084 (−0.672)	−0.130 (−1.025)	−0.595*** (−3.408)	−0.618*** (−3.489)
No coresiding partner (ref. yes)	1.609*** (7.110)	1.426*** (5.899)	0.276 (1.298)	0.212 (0.969)	0.354*** (2.961)	0.304** (2.432)	1.310*** (6.830)	1.331*** (6.677)
Parenthood status (ref. has at least one coresiding child)								
Childless	1.232*** (3.659)	1.303*** (3.803)	0.951*** (3.557)	0.936*** (3.489)	0.485** (2.265)	0.533** (2.441)	1.380*** (2.648)	1.311** (2.478)
Has children, all living outside the household	0.982*** (3.454)	0.932*** (3.152)	0.538*** (2.689)	0.483** (2.396)	0.365** (2.038)	0.423** (2.311)	0.850* (1.779)	0.835* (1.716)
Receives informal support with personal care from outside the household		1.874*** (5.758)		1.100*** (3.925)		0.690** (2.103)		2.721*** (3.286)
Receives informal support with household chores or paperwork from outside the household		0.724*** (3.447)		0.623*** (2.899)		0.750*** (6.301)		0.288* (1.704)

Table 5. *Continued*

	Germany		Italy		France		Denmark	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Receives informal support with personal care from within the household		−0.175 (−0.470)		0.512** (2.079)		0.633*** (2.791)		0.074 (0.166)
Constant	−13.190***	−12.470***	−7.574***	−7.543***	−6.910***	−6.610***	−11.690***	−11.770***
	(−10.800)	(−9.940)	(−7.210)	(−7.143)	(−10.550)	(−9.983)	(−10.360)	(−10.310)
Observations	2,622	2,622	2,715	2,715	2,678	2,678	1,809	1,809
Number of num_id	1,952	1,952	1,936	1,936	1,815	1,815	1,316	1,316
Wald χ^2 (18)/(21)	312.64	319.05	195.17	210.88	342.18	382.17	346.46	343.27
Prob. > χ^2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: ADL = activities of daily living; IADL = instrumental activities of daily living. *Z* statistics in parentheses.
***$p < .01$. **$p < .05$. *$p < .1$.

likelihood of using formal care. In Italy and France, there is also a positive relation between formal care and help from someone within the household, whereas the relation is not significant in Germany and Denmark. Most importantly, the results reported in Table 5 suggest that controlling for informal support only to a very limited extent affects the positive relation between an individual's income and the use of formal care services in Italy and Germany. The relation remains substantially significant for the fourth and fifth income quintiles in Germany and for the top three income quintiles in Italy.

Discussion

Population aging and the rapid increase in the number of older individuals with severe disabilities and LTC needs represent some of the main challenges to the sustainability of European welfare systems. The scale of these challenges has induced many countries to endeavor to reduce the costs related to LTC policies and encourage families to provide care to their older members—by focusing on home care and/or cash-for-care programs. Beyond this common trajectory, however, there are still major differences in the institutional design of the different European care regimes. In this article, we have considered the effect of these differences on the stratification of the use of formal care.

The results show that the main cleavage in the institutional design of European LTC systems is that between systems that are mainly based on care services provision (Denmark and France) and those based on cash-for-care programs (Italy and Germany). The former not only grant higher coverage of LTC services but also ensure that access to formal care is equally distributed along the income distribution. Conversely, both in Germany and Italy, individuals' income is positively correlated with the likelihood of receiving formal care. Furthermore, this positive relation is not mediated, to a significant extent, by the unequal use of informal care. In fact, the receipt of formal care is positively correlated with access to unpaid help. This latter finding is in line with previous research showing that there is no crowding-out relation between formal and informal care provided to older people, especially when care needs are high (Motel-Klingebiel, Tesch-Roemer, & von Kondratowitz, 2005).

Concerning other dimensions of the stratification system, the analyses indicate that in general an individual's educational level does not play a significant role; all of the four LTC systems seem particularly suited to delivering formal care services to those individuals who have weak or absent family networks. Finally, although household financial wealth does not significantly affect the distribution of formal support, home ownership plays an important role in the two countries that adopt a more universal approach in the design of their care systems, that is, Denmark and Germany.

The study has some limitations that should be pointed out. First, and most importantly, the SHARE data do not

make it possible to distinguish between public and private paid care. This is clearly a serious shortcoming because the effect of the institutional design of public policy cannot be separated from the role played by the characteristics of the care services market. Similarly, we are not able to distinguish between private care services bought (at least partially) with money provided by public institutions and services purchased with respondents' own means. Next, the type of formal care received by the respondents cannot be clearly identified—thus, for instance, distinguishing care received for tasks related to IADL from time-demanding support with personal care. Moreover, as regards informal support from outside the household, the information provided by the SHARE is at the couple and not individual level. Finally, due to the small number of cases available at country level, we could not restrict our analyses to the very old population (i.e., people aged 75 or older), which is in greater need of help and care.

Overall, our results support the idea that although the transition of European LTC systems toward home care services and the adoption of means testing criteria does not necessarily lead to an unequal distribution of formal care, the shift toward LTC systems based on cash-for-care programs may give rise to significant inequalities in the use of professional support in old age. These inequalities are in favor of the more income-affluent groups of the population. Therefore, if the trend toward the refamilialization of care obligations continues in the next decades, we should expect access to formal care in old age to become more unequally distributed.

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