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**ANCIEN**

Assessing Needs of Care in European Nations

# EXECUTIVE SUMMARY OF WORK PACKAGE 3 ON AVAILABILITY AND CHOICE OF CARE OF THE ANCIEN PROJECT

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## Abstract

Work Package 3 on the Availability and Choice of Care of the ANCIEN project aims to document the forces driving the choice of formal and informal care across European countries and to characterise the linkages between the type of care used by dependent people and a country's institutional setting, which determines the supply of formal and informal care. Different issues related to formal and informal care choices and the LTC (long-term care) institutional setting in the EU have been analysed by the WP3 contributors. This research report summarises each partner's contribution.



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# Executive Summary of Work Package 3 on Availability and Choice of Care of the ANCIEN Project

ENEPRI Research Report No. 101/February 2012

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## Summary

Work Package 3 on the Availability and Choice of Care of the ANCIEN project aims to document the forces driving the choice of formal and informal care across European countries and to characterise the linkages between the type of care used by dependent people and a country's institutional setting, which determines the supply of formal and informal care.

Different issues related to formal and informal care choices and the LTC (long-term care) institutional setting in the EU have been analysed by the WP3 contributors. This document aims to briefly summarise each partner's contribution. The workload was divided into five main tasks, involving contributions from seven partners of the ANCIEN project: Institute for Advanced Studies (IHS), Federal Planning Bureau (FPB), Research Institute of the Finnish Economy (ETLA), Center for Social and Economic Research (CASE), Personal Social Services Research Unit (PSSRU) of the London School of Economics and Political Science (LSE), Fundación de estudios de Economía Aplicada (FEDEA) and the Istituto di Studi e Analisi Economica (ISAE). The first two tasks analyse formal and informal care from various perspectives. The third task studies the choice of the type of care and its implications for the number of hours of care received. Finally, tasks four and five analyse the implications of providing care for (informal) caregivers.

Regarding the effect of the institutional setting on the form of LTC chosen, **IHS** offers a general portrait of the formal and informal care characteristics in 21 EU countries, providing a general framework to support subsequent analysis in WP3. Concerning the future trends of LTC systems in Europe, **FPB** conducts a comparative analysis of the size and composition of the LTC systems in the countries chosen to represent the clusters identified in WP1, carrying out a projection exercise to determine the impact of demographic trends on the number and the age structure of workers employed in care activities.

**ETLA** analyses the characteristics of the LTC system in Finland and assesses the impact on the quality of life of those living at home compared to the quality of life of those living in institutions, given their health status. This model constitutes the basis for subsequent analysis in WP6.

Using SHARE data, **CASE** analyses the patterns of use of formal and informal LTC in a set of countries chosen to represent each one of the clusters identified in WP1: the Netherlands (where the state is considered the main provider of care), Germany (where care provision is mixed), Spain (where care provision is mainly a family responsibility) and Poland and Italy (where care provision is mostly a family responsibility and the provision of public LTC is decentralised and

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not integrated with other services). The Polish partner also discusses possible determinants of demand for different types of care. Along the same lines, using Eurobarometer data, **LSE** conducts a detailed analysis of the probability of providing informal care depending on individual and family circumstances.

The determinants of the choice of the type of care across European countries are also studied in WP3. **FEDEA** has developed a model based on the **SHARE** data that focuses on the trade-offs between formal and informal care, and on the volume of care. The model allows the testing of competing hypotheses regarding the complementarities /substitutability of formal and informal care, based on family characteristics and socioeconomic variables.

Another important issue covered in WP3 is the burden of the informal caregivers and the labour market implications of caring. This issue is analysed by **FEDEA** based on Eurobarometer data, by means of using a trivariate probit model, where the unmet needs in long-term care and their effects on labour market outcomes of caregivers are considered.

Finally, **ISAE** analyses the impact of long-term care on caregivers' labour market participation, using data of the **ECHP**. Specifically it used the information obtained from a survey related to the constraints experienced in one's working life due to LTC responsibilities.

## 1. Description of the tasks

The work in Work Package 3 is divided into five main tasks:

- Task 1: What are the developments/characteristics of the supply of informal care and how does it depend on regulation across European countries?
- Task 2: What are the developments/characteristics of the supply of formal (institutionalised and non-institutionalised) care and how does it depend on regulation across European countries?
- Task 3: What are the determinants across European countries of the choice of the type of care: formal, informal or both?
- Task 4: What is the burden of (informal) caregivers and does it depend on policy?
- Task 5: Labour market implications (opportunity cost) for caregivers

A detailed description regarding each specific partner's contribution to the different tasks considered in WP3 is provided below.

## 2. Results

### 2.1 Task 1: What are the developments/characteristics of the supply of informal care and how does it depend on regulation across European countries?

*Subtask 1.1. IHS: The organisation of formal long-term care for the elderly. Results from 21 European countries from the ANCIEN study*

Riedel and Kraus (2011a) analyse the characteristics of the LTC system in 21 European countries. It provides a complete portrait of the general situation on the continent regarding formal care provision. To compare the LTC systems in each country, they focus on three features:

- 1) the degree of decentralisation/centralisation to provide LTC formal services (that is, the level of the governing body that regulates the LTC provision), to regulate capacity-planning and to establish standards concerning the quality of the services provided;
- 2) access to formal LTC services (means-tests, entitlement criteria, geographical or other type of criteria related to country-specific features of the LTC systems, such as waiting lists, capacity shortages in the country provision of the service, or 'psychological barriers' of the population to claim formal services); and
- 3) characteristics of the supply of LTC regarding the type of formal services provided (nursing homes, residential homes, 'hotel services' and personal services), the nature of the LTC service provider (public or private), the degree of competition among the existing providers and the nature of the benefits received (benefits in kind versus benefits in cash).

Regarding the degree of decentralisation, centralised and shared decision-making can be found in Europe with a roughly similar frequency. The same occurs with capacity-planning, which takes place at national, regional or local level, depending on the country in question. Moreover in two-thirds of the countries' LTC systems, quality assurance is mandatory. Regarding the provision of LTC systems, the public-private mix of LTC service provision goes hand in hand with the possibility to enable care recipients to choose among alternative providers.

#### ***Subtask 1.2 CASE: Determinants of obtaining formal (and informal care) across European countries***

In this report, Marcinkowska and Sowa (2011) discuss the determinants of the demand of the different types of care available in the four countries that represent the clusters identified in WP1: 1) the Netherlands, 2) Germany, 3) Spain and 4) Poland and Italy). Regarding formal care, both separated as well as pooled regressions (including a dummy for each representative country) are carried out.

Women, people with basic ADLs (activities of daily living) and/or IADLs (instrumental activities of daily living), persons living alone and persons with higher/university education have a higher probability of receiving formal care. Regarding the institutional framework, the probability of using formal LTC is higher in countries where the provision of formal LTC is more developed. That is, Netherlands is the country with the highest probability of formal care usage whereas Spain has the lowest probability, and German and Italy are in an intermediate position.

#### ***Subtask 1.3 FPB: The long-term care workforce: Description and Perspectives***

In this report, Geerts (2011) aims to characterise the four countries chosen to represent the clusters identified in WP1 and to illustrate the effects of their projected future demographic trends on care supply and demand forces. The comparison is based on the data contained in the EU Labour Force Survey (LFS) and when necessary, complemented with data from national statistical institutes.

Country comparisons reveal that care employment doubled in Spain and that it increased substantially in Germany and the Netherlands during the period 1993-2008. In Germany, the increase in long-term care rose faster than employment in all care-related occupations, whereas in the Netherlands full-time LTC-related occupations decreased. Poland and Spain follow a similar trend in care employment and in total employment.

Regarding gender, employment in care is predominantly a female occupation in all countries considered. Germany and Spain exhibit higher concentration of women in domestic care whereas in the Netherlands the share of women is higher among personal care workers and in

Poland among nursing professionals. An interesting feature detected in the LFS is that the share of care workers aged 50-64 has increased in all considered countries, especially in the Netherlands and Poland. Regarding educational attainment, although the LTC sector has experienced a substantial improvement in all countries (especially in Spain and Poland), it remains low compared to the total workforce. The share of immigrants in caring occupations is higher than in other occupations, but evolves in line with total labour market trends.

According to their projection model (a stock-flow cohort projection method), care employment is projected to evolve very differently in the countries considered. High net inflows of workers into the LTC sector are projected in Spain for all age categories considered (change in the model of families, growing income for middle-class households and the ageing population are the main reasons), doubling the number of workers in the LTC sector. In Germany it is projected that the total number of people working in LTC will decrease slightly and predicted net inflows are only projected in the share of workers aged 30-44. In the Netherlands LTC employment is projected to remain constant, except for the share of workers aged 40-49, which is projected to increase. In Poland the share of workers in LTC is projected to halve during the same period, and a substantial ageing process is predicted to affect its LTC force.

#### ***Subtask 1.4 ETLA: Institutionalisation and quality of life for old-age individuals in Finland***

In their contribution, Böckerman, Johansson and Saarni (2011) analyse how the LTC characteristics in Finland affect individuals' well-being and quality of life. They compared subjective well-being of Finnish people living in institutions with subjective well-being of Finns living at home, given their health status. For this purpose, they used information on people aged 60 and older from the Health 2000 Survey and established health-related quality of life and subjective well being from HRQoL (Health Related Quality of Life).

The authors argue that the characteristics of LTC in Finland are very important to understand the influence of institutionalisation in the acknowledged subjective well-being of dependents. Specifically, the LTC system in Finland is a publicly funded system, subsidised by taxes and open to all residents. Access to old-age homes is rationed and there are waiting lists. Because the right to receive the service is based on residence, any resident in need of receiving LTC may contact the municipality, who assesses their needs and decides on which services should be provided to them. The fact that the system is very atomised and decentralised encourages unequal treatment in LTC provision, in the sense that there can be people waiting for a place in old age homes whose health is as bad as people already living in institutions.

The ETLA researchers first analysed the determinants of being institutionalised in Finland by means of a binary regression where the dependent variable takes the value 1 if individuals are institutionalised (they do the same identifying separately different types of institutionalisation: living in a service home, and living in an old-age institution) and the dependent variables are age, gender, marital status, income and health problems, and the health score from HRQoL. The older, the poorer, the single, and less healthy individuals are more likely to be institutionalised. ETLA further analysed the effect of institutionalisation on happiness using an ordered probit model, where the dependent variable is subjective quality of life, as stated by the individuals. When controlling for health status, demographics and income, those who are institutionalised report higher levels of happiness. The researchers interpret the result to be a consequence of rationed provision of institutional care, which allows some people with bad health to live in homes resulting in a decreased quality of life, with others, enjoying the same health living in institutions.

## **2.2 Task 2: What are the developments/characteristics of the supply of formal (institutionalised and non-institutionalised) care and how does it depend on regulation across European countries?**

### ***Subtask 2.1 IHS: Analysis of informal care provision across Europe: Regulation and profile of providers***

In this report Riedel and Kraus (2011b) describe the characteristics of informal care providers according to the data in SHARE and EUROSTAT, and the support services available in the 21 countries considered in the analysis, according to the information obtained from a survey completed by ANCIEN participants. The survey provides information about the quality of the support services to informal caregivers, the benefits for care receivers, and informal caregivers (amount, type of support services and how are they accessed), which allows a detailed comparison of the main features that can exert an influence on the provision of informal care. All countries except Lithuania provide benefits in cash to finance LTC provided through informal caregivers, although there is considerable variation within countries in the amount of the benefits provided. All the countries included in the 2<sup>nd</sup> cluster of countries in Work Package 1 of the ANCIEN project provide cash benefits for care recipients as well as informal care providers, while in the 3<sup>rd</sup> cluster, the availability of this kind of cash benefit is limited. Within those countries classified in the 4<sup>th</sup> cluster, all varieties can be found: cash benefits in Poland and Romania; no benefits in Lithuania and exactly one (Hungary) possible recipient of a payment.

### ***Subtask 2.2 CASE: Determinants of obtaining (formal and) informal care across European countries***

In their contribution Marcinkowska and Sowa (2011) discuss the determinants of the demand of the different types of care available in the four countries that represent the clusters identified in WP1: 1) the Netherlands, 2) Germany, 3) Spain and 4) Poland and Italy. Regarding informal care, both separated and pooled regressions (including a dummy for each representative country) are conducted.

Concerning informal care demand, when formal settings of care are less available, the probability of receiving informal care is higher (the highest probability of receiving informal care is in Germany and the lowest in Spain). Moreover it is important to distinguish between the probability of receiving informal care from people living inside the household and people living outside the household. Men have a higher probability of obtaining informal care from inside the household and women from outside the household. In most countries, age and physical limitations are leading factors that determine the use of informal care: care is provided to the "older among the elderly". Persons with higher/university education have the lowest probability of receiving informal care in Spain and Poland, while income is positively related to receiving informal care from people living inside the household in Germany and Netherlands. The analysis reveals, contrary to the common belief, that informal care provided regularly from non-family members is more common in the Netherlands and Germany than in Eastern European and Mediterranean countries.

### ***Subtask 2.3 LSE: The supply of informal care in Europe***

In her contribution to the Work Package Pickard (2011) analyses the probability of providing informal care (with personal care tasks or ADL) using the 2007 Euro barometer EB 67.3 survey. In the Appendix the analysis is complemented using additional SHARE data.

Eurobarometer data reveal that differences in the probability of providing informal care are due not only to differences in socio-demographics factors, but also due to differences in LTC

systems across EU countries. Differences in the probability of providing informal care are greater when the provision of the more demanding forms of informal care is considered: Denmark, the Netherlands and Sweden are characterised by lower provision of informal care when it affects people with two or even more ADLs, whereas Spain and Poland exhibit the highest probability of providing informal care in the case of informal care provision that affects people with less than two ADLs.

Additional hypotheses are considered to explain differences in the observed provision of informal care. Concretely, differences in the need for informal care across countries are considered as a plausible determinant of the differences in the demand of informal care. To explore this hypothesis, the share of people with ADLs is compared in the four countries considered. The data, however, do not support the hypothesis, since the Netherlands has a higher share of people with ADLs and, at the same time it is the country with the lowest rate of informal care provision.

### **2.3 Task 3: What are the determinants across European countries of the choice of the type of care: formal, informal or both types?**

#### *FEDEA: Choice of care and hours of care*

In this paper, Jiménez-Martín, Vilaplana and Vegas (2011) provide an analysis of the probability of receiving formal care, informal care or both and its implications for the number of hours of care received. In particular, following the methodology proposed in Bourguignon, Fourier et al. (BFG) (2007), a sample selection model is estimated, with the particularities that the first step is a multinomial logit model, using information contained in SHARE. In the first part of the report, the analysis is performed separately for Germany, the Netherlands, Spain, Italy and the Czech Republic. The analysis is restricted to people older than 65 years who suffer chronic conditions or health problems that limited them in their ADLs. The idea is that the type of care provided to dependents and the number of hours of care are two interrelated decisions that are taken within the family. The final decision taken depends not only on the health status of the dependent, but also on the family's income, the type of disabilities and illness that the dependent person suffers, education, civil status and other family and personal characteristics. When the analysis is performed for each selected country separately, we obtain evidence in favour of the task-specific model and complementary model in Spain and Italy (the same happens in the Czech Republic, although there are some identification problems in this country due to the small number of observations). On the other hand, neither in Germany nor the Netherlands do we find evidence of the existence of any kind of interrelationship between the different sources of available care.

Finally, FEDEA is analysed to what extent differences between countries are due to their LTC system characteristics. For doing so, a pooled regression with country dummies is performed to shed some light across LTC systems on the hours of care provided by type of care. Three different ways of clustering countries are considered: geographical criteria, generosity of the LTC system and characteristics of the LTC system. The task-specific/complementary model appears as the paradigm to characterise the experience in the set of clusters considered. Additionally, we have observed that, as the dependency degree increases, there may be either a substitution of informal caregivers or an increase in their size both when we cluster countries according to the geographical criteria or according to the generosity/characteristics of their LTC systems.

Therefore, despite differences in the propensity of usage of each particular type of care in each country, which are reflected in the differences in the cluster coefficients, the final choice about the type of care supplied is not determined by country-specific utility characteristics, but by the needs of the dependent person. Therefore, a rational suggestion to be implemented in the



definition of the LTC policies in EU should be to keep them in pace with the health and demographic patterns and trends within the EU. Country-specific policies are needed in those cases where the demographic and health characteristics of the older population depart significantly from the average.

## **2.4 Task 4: What is the burden of (informal) caregivers and how does it depend on policy?**

### ***FEDEA: Informal care, labour problems and unmet needs in the EU-27, Croatia and Turkey***

This report by Vilaplana (2011) addresses the issue of informal care and consequences for working life by incorporating the perspective of unmet needs. We consider that an unmet needs problem arises when the dependent individual has applied for formal care (home care, day centre, residential home), but has not been granted with the service, or when he receives it, it is not in the quantity or with the quality desired. In this sense, we hypothesize that more unmet needs of formal care lead to more adverse consequences the caregiver, and particularly, more problems to reconcile between caregiving responsibilities and his/her professional career.

For this purpose, we have used data from the Eurobarometer EB67.3 entitled “Health and long-term care in the European Union”, because it has the advantage of providing information about informal care, labour problems and unmet needs of the EU-27 and two other candidates countries seeking accession to the European Union, namely Croatia and Turkey. Our empirical model is intended to test the effect of labour problems and unmet needs for formal care on the probability of being an informal caregiver. If, when the dependent individual suffers an unmet needs problem, one of the family members reacts by providing the necessary amount of care, then informal care acts as a ‘cushion’, offsetting formal care deficiencies. Independently of having labour problems due to caregiving responsibilities, the emergence of unmet needs might have a significant bearing on labour problems. Therefore, a dysfunctional long-term care system can give birth to the lowering of economic well-being of the caregiver, not only at present, but also in the coming years due to the reduction in retirement benefits. The simultaneous estimation of three probit equations for “being an informal caregiver”, “having labour problems due to caregiving tasks” and “suffering formal care unmet needs” constitutes a simple method to deal with the endogeneity problem.

The main contributions of this work are: 1) the estimation of the effect of unmet needs for formal care and labour problems on informal care in a model dealing with endogeneity of these variables and 2) the test for the positive influence of unmet needs on labour problems. Our results show that conditional on having labour problems, it is more probable to observe unmet needs for formal care. We differentiate three groups of countries. The first group is composed of 11 countries (Belgium, Germany, Italy, Luxembourg, Finland, Cyprus, Czech Republic, Latvia, Lithuania, Poland and Bulgaria) for which both events are complementary. In this situation the caregiver cannot rely on long-term care support to alleviate his/his burden, and informal care acts as a substitute for formal care. In the second group, composed by seven countries (Denmark, France, Ireland, Portugal, Sweden, Estonia and Turkey), there is a lower probability of suffering labour problems in the presence of unmet needs. In this case, either because caregivers are more protected from the point of view of occupational regulation, or because the national long-term care system is more efficient, the result is that the caregiver’s labour situation is less susceptible to unmet needs. The third group is composed of 11 countries (Greece, Spain, the Netherlands, the United Kingdom, Austria, Hungary, Malta, Slovakia, Slovenia, Romania and Croatia) where there is a high concentration of unmet needs among those caregivers who suffer labour problems, and even in the absence of unmet needs, informal caregivers face difficulties in continuing their working life.

## 2.5 Task 5: What is the burden of (informal) caregivers and how does it depend on policy? Labour market implications (opportunity cost) of caring for caregivers

*ISAE: “The impact of long-term care on caregivers’ labour market participation”.*

The aim of the contribution by Gabriele, Tanda and Tediosi (2011) is to analyse the consequences of adult caregiving on informal caregivers’ status in the labour market, according to the information contained in ECHP<sup>1</sup> for the Netherlands, Belgium, Italy and Spain. Using the information contained in this database, ISAE compares the prevalence of informally caring for dependent people in Europe. They compare the incidence of informal care duties by gender and age, and describe how it has evolved from 1994–2001. Moreover, they compare the average number of care hours devoted to elderly by working conditions and by gender, and the percentage of people working either full-time or part-time who claim to be constrained in the amount of paid work they are able to perform because of their care responsibilities. Finally, they estimate the probability for a caregiver to be constrained in the amount or kind of paid work because of care duties, using a probit model where the dependent variable is constrained in the amount or kind of paid work because of care duties. According to the preliminary version of the paper, women who are not working and people who are caring for adults in their own household are the ones with a higher probability of being constrained (the probability increases with age and with intensity of care responsibilities) in the labour market.

### 3. Concluding comments

In this Work Package, we have investigated various issues regarding the provision and use of care as well as its implication for the quality of life of caregivers. The workload has been divided into five main tasks. The first two tasks, which analyse various aspects of informal and formal care, involve several subtasks. This concluding section reviews the key findings obtained from the analysis.

Regarding the effect of the institutional setting in the form of LTC chosen, the report provides a general portrait of the formal and informal care settings in 21 EU countries, which provides a general framework to support subsequent analysis in WP3.

Regarding the probability of receiving formal care, the report finds that women, people with ADLs and/or IADLs, people living alone, and persons with higher/university education have a higher probability of receiving formal care. The report also stresses that the probability of using formal LTC is higher in countries where the provision of formal LTC is more developed. That is, after controlling for socio-demographic and health characteristics, the Netherlands is the country with the highest probability of formal care usage, while Spain has the lowest probability and German and Italy are in an intermediate position.

Concerning the future trends of LTC systems in Europe, country comparisons reveal that care employment doubled in Spain and that it increased substantially in Germany and the Netherlands during the period 1993–2008. In Germany, the increase in long-term care rose faster than employment in all care-related occupations, whereas in the Netherlands full-time LTC-related occupations decreases. Poland and Spain follow a similar trend in care employment and in total employment.

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<sup>1</sup> The European Community Household Panel (ECHP) is a panel survey in which a sample of households and persons were interviewed year after year, covering a wide range of topics concerning living conditions. They include detailed income information, financial situation, working life, housing, social relations and health. The total duration of the ECHP was 8 years, running from 1994–2001 (8 waves).

Regarding institutionalisation, the report finds that the older, the poorer, single, and less healthy individuals are more likely to be institutionalised. The report also analyses the effect of institutionalisation on happiness using an ordered probit model, where the dependent variable is subjective quality of life stated by individuals. When controlling for health status, demographics and income, ETLA finds that those institutionalised care report higher levels of happiness. The authors interpret the results as a consequence of rationed provision of institutional care, which results in some people with bad health living at home and as a result, having a lower quality of life than people with the same health living in institutions.

Concerning the demand for informal care, the report finds that when formal settings of care are less available, the probability of receiving informal care is higher (the highest probability of receiving informal care is in Germany and the lowest one in Spain). Men have a higher probability of obtaining informal care from inside the household and women from outside the household. In most countries, age and physical limitations are leading factors that determine the use of informal care: care is provided to the “older among the elderly”. The analysis reveals, contrary to common belief, that informal care provided regularly from non-family members is more common in the Netherlands and Germany than in Eastern European and Mediterranean countries.

Results obtained with Eurobarometer data reveal that differences in the probability of providing informal care are due not only to differences in socio-demographics factors, but also to differences in LTC systems across EU countries. Differences in the probability of providing informal care are greater when the provision of the more demanding forms of informal care is considered: Denmark, the Netherlands and Sweden are characterised by lower provision of informal care when it affects people with two or even more ADLs, whereas Spain and Poland exhibit the highest probability of providing informal care in the case of informal care provision that affects people with less than two ADLs.

In our analysis of the choice of care, we find evidence in favour of the task-specific model and complementary model in Spain and Italy (the same result obtains in the Czech Republic, although there are some identification problems in this country due to the small number of observations). On the other hand, no evidence was found in either Germany or the Netherlands of any kind of interrelationship between the different sources of available care. When the analysis is carried out on the pooled sample of countries, we find that, despite differences in the propensity of usage of each particular type of care in each country, the final choice about the type of care supplied is not determined by country-specific utility characteristics, but by the needs of the dependent person. Therefore, in defining LTC policies in the EU, it is important to take into account the health and demographic patterns and trends within the EU. Country-specific policies would be needed in those cases where the demographic and health characteristics of the older population depart significantly from the average.

Regarding the labour implications of caring for caregivers in the presence of unmet needs, our results show that, conditional on having labour problems, it is more probable to observe unmet needs in formal care. We differentiate three groups of countries. The first group is composed 11 countries (Belgium, Germany, Italy, Luxembourg, Finland, Cyprus, Czech Republic, Latvia, Lithuania, Poland and Bulgaria) for which both events are complementary. In this situation the caregiver cannot rely on long-term care support to alleviate his burden, and informal care acts as a substitute for formal care. In the second group, composed of seven countries (Denmark, France, Ireland, Portugal, Sweden, Estonia and Turkey), there is a lower probability of suffering labour problems in the presence of unmet needs. In this case, whether because caregivers are more protected from the point of view of occupational regulation or because the national long-term care system is more efficient, the result is that caregiver’s labour situation is less susceptible to unmet needs. The third group is composed of 11 countries (Greece, Spain, the

Netherlands, the United Kingdom, Austria, Hungary, Malta, Slovakia, Slovenia, Romania and Croatia) where there is a high concentration of unmet needs among those caregivers who suffer labour problems, and even in the absence of unmet needs, informal caregivers confront difficulties in continuing their working life.

The last part of the work deals with the labour implications of caring for informal caregivers. The report finds women who are not working and are caring for adults in the household have the higher probability of being constrained (the probability increases with age and with intensity of care responsibilities) in the labour market.

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Fundación de  
Estudios de  
Economía Aplicada

## About the Foundation for Applied Economics Studies (FEDEA)

The *Fundación de Estudios de Economía Aplicada* (Foundation for Applied Economics Studies) FEDEA was established in 1985 as a private research centre with the support of twenty four Spanish leading banks and corporations. FEDEA is a non-profit institution that obtains part of its operational resources from a patrimonial fund (established) by its Sponsors and it also receives income from reports and studies made for other national and international institutions. The diversification in both the sources of revenues and the Foundation's own aims to guarantee its independence in the fulfilment of its underlying objective.

The objective of FEDEA is to carry out studies that contribute to the analysis, diagnosis and discussion of the economic problems applying the principles of economic analysis, using rigorous scientific methods and independent judgement.

Each year, the foundation makes available to the public a description of its activities that, together with its publications, contribute to a better knowledge about FEDEA and its related work.

The staff at FEDEA consists of twenty persons to which guest researchers are added occasionally.

The innovative contribution of this project is to improve our understanding about the relationship between education, fertility and female employment through a life cycle and cohort analysis.

FEDEA has an extensive working experience in these issues through the projects AGIR, DEMWEL, AHEAD and AIM projects at the EU level and several projects (Spanish Ministry of Health and Consumption, Foundation BBVA, and Foundation CAIXA) for Spain.

**L**aunched in January 2009, ANCIEN is a research project financed under the 7th EU Research Framework Programme. It runs for a 44-month period and involves 20 partners from EU member states. The project principally concerns the future of long-term care (LTC) for the elderly in Europe and addresses two questions in particular:

- 1) How will need, demand, supply and use of LTC develop?
- 2) How do different systems of LTC perform?

The project proceeds in consecutive steps of collecting and analysing information and projecting future scenarios on long-term care needs, use, quality assurance and system performance. State-of-the-art demographic, epidemiological and econometric modelling is used to interpret and project needs, supply and use of long-term care over future time periods for different LTC systems.

**Work Packages.** The project started with collecting information and data to portray long-term care in Europe (WP 1). After establishing a framework for individual country reports, including data templates, information was collected and typologies of LTC systems were created. The collected data will form the basis of estimates of actual and future long term care needs in selected countries (WP 2). WP 3 builds on the estimates of needs to characterise the response: the provision and determinants of formal and informal care across European long-term care systems. Special emphasis is put on identifying the impact of regulation on the choice of care and the supply of caregivers. WP 6 integrates the results of WPs 1, 2 and 3 using econometric micro and macro-modelling, translating the projected needs derived from WP2 into projected use by using the behavioral models developed in WP3, taking into account the availability and regulation of formal and informal care and the potential use of technological developments.

On the back of projected needs, provisions and use in European LTC systems, WP 4 addresses developing technology as a factor in the process of change occurring in long-term care. This project will work out general principles for coping with the role of evolving technology, considering the cultural, economic, regulatory and organisational conditions. WP 5 addresses quality assurance. Together with WP 1, WP 5 reviews the policies on LTC quality assurance and the quality indicators in the EU member states, and assesses strengths, weaknesses, opportunities and threats of the various quality assurance policies. Finally WP 7 analyses systems performance, identifying best practices and studying trade-offs between quality, accessibility and affordability.

The final result of all work packages is a comprehensive overview of the long term care systems of EU nations, a description and projection of needs, provision and use for selected countries combined with a description of systems, and of quality assurance and an analysis of systems performance.

### Principal and Partner Institutes

CEPS is responsible for administrative coordination and dissemination of the general results (WP 8 and 9). The Belgian Federal Planning Bureau (FPB) and the Netherlands Bureau for Economic Policy Analysis (CPB) are responsible for scientific coordination. Other partners include: German Institute for Economic Research (DIW); Netherlands Interdisciplinary Demographic Institute (NIDI); Fundación de Estudios de Economía Aplicada (FEDEA); Consiglio Nazionale delle Ricerche (CNR); Università Luiss Guido Carli-Luiss Business School (LUISS-LBS); Institute for Advanced Studies (IHS); London School of Economics and Political Science- Personal Social Services Research Unit (PSSRU); Istituto di Studi e Analisi Economica (ISAE); Center for Social and Economic Research (CASE); Institute for Economic Research (IER); Social Research Institute (TARKI); The Research Institute of the Finnish Economy (ETLA); Université de Paris-Dauphine-Laboratoire d'Economie et de Gestion des organisations de Santé (DAUPHINE- LEGOS); University of Stockholm, Department of Economics; Karolinska Institute-Department of Medicine, Clinical Epidemiology Unit ; Institute of Economic Research, Slovak Academy of Sciences (SAS-BIER); Center for Policy studies (PRAXIS). Most of the ANCIEN partners are members of the European Network of Economic Policy Research Institutes (ENEPRI).