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Assessing Needs of Care in European
Nations

HOW EUROPEAN NATIONS CARE FOR THEIR ELDERLY

A NEW TYPOLOGY OF LONG-TERM CARE SYSTEMS

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1. Introduction

Expected future demographic and societal shifts have put the improvement of quality and efficiency of long-term-care (LTC) systems on the agenda of virtually every EU member state, last but not least in order to support its long-term financial sustainability. Research to support the reform process, however, suffers from the scarcity of reliable and comparable data to work with, and the extent to which the process can be generalised is further complicated by large differences in the design of national LTC systems.

Work Package 1 of the ANCIEN (Assessing Needs for Care in European Nations) project collected data on national LTC systems in 21 European countries and produced national reports describing the structure of these systems. The collected material allowed the project team to derive a typology of LTC systems in European countries, or more specifically: to derive one typology of organisation and financing of care, and another typology focusing on use and financing of care. Unlike existing typologies, the ANCIEN typologies focus on LTC rather than a broader definition of social, health or welfare services, and include old as well as new EU member states. Furthermore, the ambitious data collection process allowed the project team to apply formal methods in deriving the typology, which is another novelty in this field. The creation of empirically founded system ‘types’ should serve to make research in this field more easily generalisable within groups of this typology and thus to improve the efficiency of further research on LTC.

2. Evidence and analysis

Two typologies of LTC systems were developed. The first approach, which focuses on organisation of care, relies on qualitative information and includes 21 EU member states. The second approach characterises use of care and therefore needs quantitative variables. Due to data limitations in the area of metric variables, only a limited number of countries could be included into the latter typology.

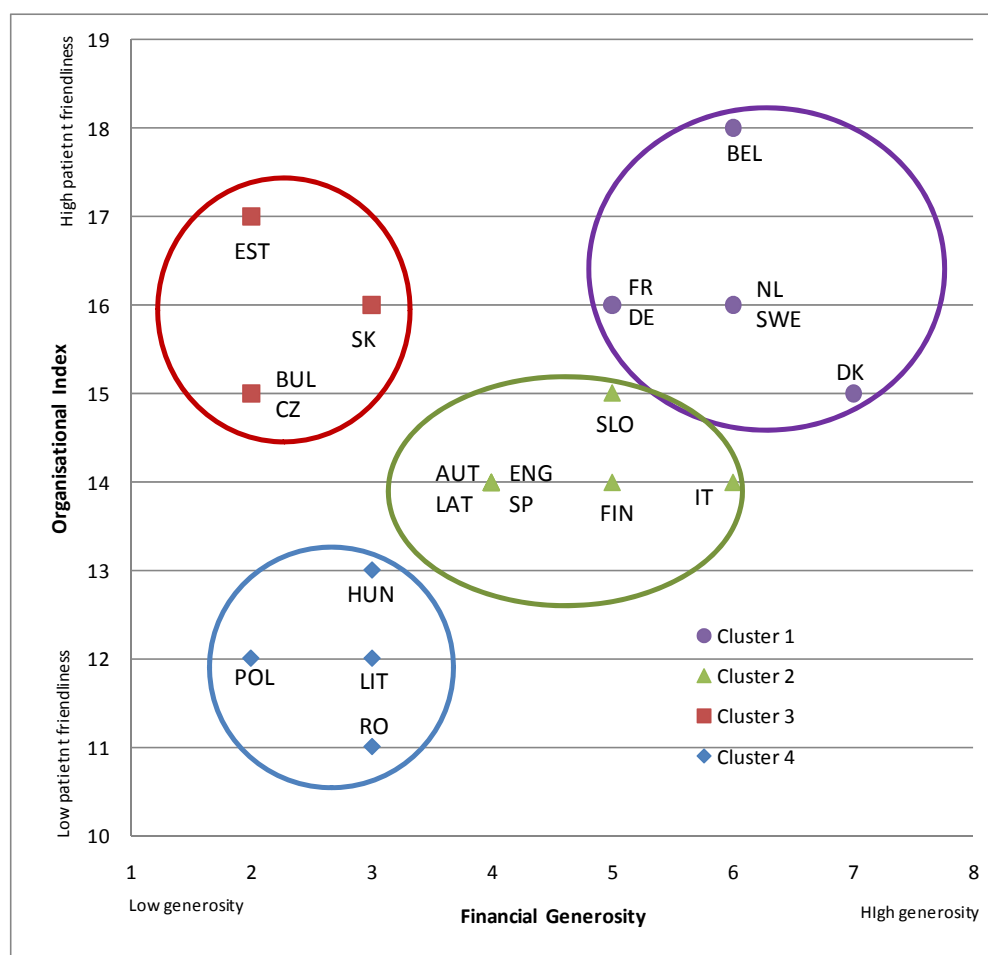
Approach 1. Typology focusing on organisation and financing of care

In the course of the project, an index relating organisational characteristics of LTC systems to patient friendliness was developed and combined with an index on the generosity of public LTC systems. The two indices depict (almost) a continuum of possibilities of how developed LTC systems and how generous public financing for those systems can be (see Figure 1). Both indices, organisational depth and financial generosity, are to be read in a similar manner: high values

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represent system characteristics that are preferable from the patient's or client's point of view, with low values being less preferable.¹ The index for organisational depth is constructed from information on means-testing, entitlements for services, availability of cash benefits, provider choice, quality assurance and integration of care. The index on financial generosity uses public expenditures for LTC as a share of GDP and the presence of cost-sharing.

Figure 1. Organisation and financing typology



Source: Markus Kraus, Monika Riedel, Esther Mot, Peter Willemé, Gerald Röhring and Thomas Czipionka, *A Typology of Long-Term Care Systems in Europe*, ENEPRI Working Paper No. 91, Centre for European Policy Studies, Brussels, August 2010 (www.ceps.eu).

Four groups of countries can be identified: Nordic countries, but also France and Germany share highly developed systems and quite generous public funding. New member states of the EU usually devote less funds to long-term care, but their systems are far from similar regarding the

¹ Preferences from the point of view of the average citizen as ultimate payer may differ, as they can be expected to attach higher value to low current expenditure than to a high service level. As everybody without current need for care is a potential future care recipient, and many of them are already a close relative of a person with care needs, we nevertheless chose the care recipient's point of view. Furthermore, expenditure on LTC and efficiency of the LTC system would probably constitute the two most important features from the payer's point of view. Expenditure on LTC is comprised in the financial generosity index, while there is no comparative data on the efficiency of LTC systems available yet.

organisational depth of their systems: the project team finds a country group with highly developed systems (Bulgaria, Czech Republic, Estonia, Slovakia) and a group with less patient-friendly system characteristics (Hungary, Lithuania, Poland, Romania). The remaining group of countries is in an intermediate position and characterised by moderate financial generosity and moderate organisational depth. This group is geographically very diverse and includes Austria, England, Finland, Italy, Latvia, Slovenia and Spain.

Approach 2. Typology focusing on use and financing of care

This approach uses quantitative information on the use of care and is limited to 14 EU member states for which data are available. The following four variables turned out to be essential in characterising LTC systems: public expenditure on LTC as a share of GDP (corrected for the population share 65+), private expenditure as a share of LTC spending, informal care recipients 65+ as share of the population 65+, and support for informal care givers. The results are illustrated in Table 1 and Figure 2.

Table 1. Use and financing typology

Nature of the system	Countries	Characteristics
Cluster A Informal care oriented, low private financing	Belgium,* Czech Republic, Germany, Slovakia	Low spending, low private, high IC use, high IC support, cash benefits modest
Cluster B Generous, accessible and formalised	Denmark, the Netherlands, Sweden	High spending, low private, low IC use, high IC support, cash benefits modest
Cluster C Informal care oriented, high private financing	Austria, England, Finland, France, Spain	Medium spending, high private, high IC use, high IC support, cash benefits high
Cluster D High private financing, informal care seems necessity	Hungary, Italy	Low spending, high private, high IC use, low IC support, cash benefits medium

Notes: IC = informal care.

* Denotes a medium spender.

Source: Markus Kraus, Monika Riedel, Esther Mot, Peter Willemé, Gerald Röhrling and Thomas Czepionka, *A Typology of Long-Term Care Systems in Europe*, ENEPRI Working Paper No. 91, Centre for European Policy Studies, Brussels, August 2010 (www.ceps.eu).

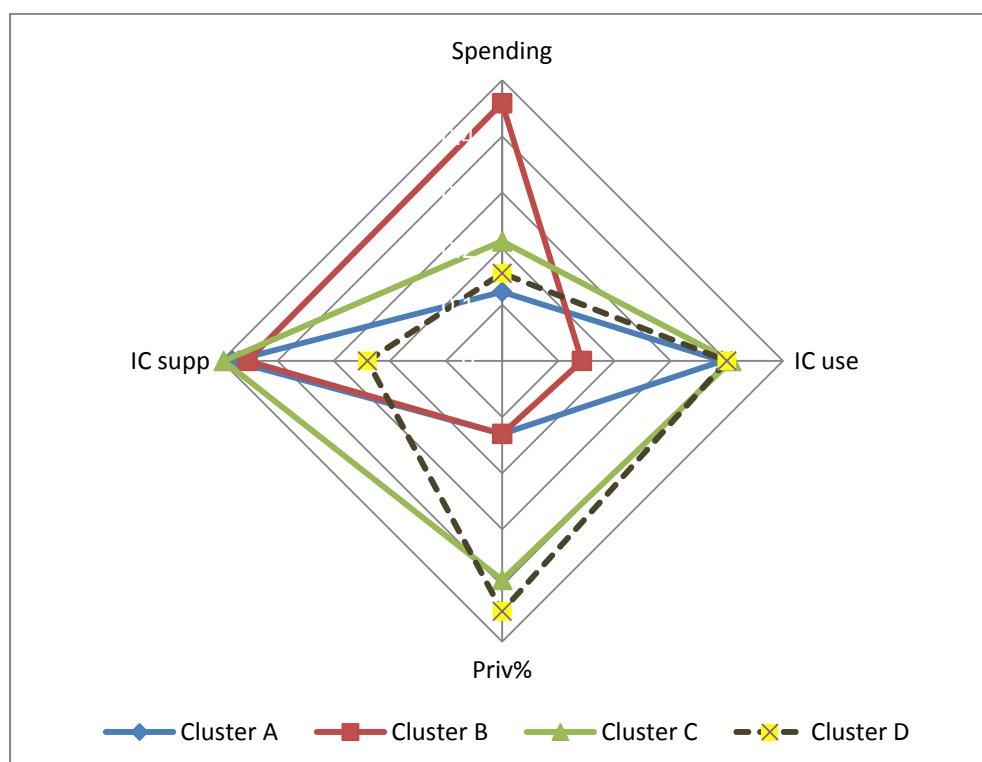
The results give rise to a typology of LTC systems that can be interpreted in terms of ‘spending-related’ and ‘informal care-related’ systems:

- In terms of the role of spending, cluster B is characterised by countries with a highly developed and ‘generous’ public LTC system. This group represents the so-called ‘Scandinavian’ model. On the opposite side, the project team finds clusters C and D, characterised by low- or medium-spending countries with considerable private financing.

There is no clearly discernible geographical pattern, as this group includes Mediterranean, Central European and Scandinavian countries, as well as England. Cluster A is an intermediate case, comprising less generous systems with a low share of private financing.

- In terms of the role of informal care, there are two opposite and two intermediate systems. The opposites are clusters B and D. The former is characterised by low informal care use but relatively substantial support for informal care givers, while the latter has high informal care use despite the lack of support. This outcome can be interpreted in terms of the degree of development of the LTC systems: the ‘Scandinavian’ cluster has a highly developed system with generous funding, where the relatively low use of informal care (despite the financial support) can be explained by the availability of and probably the preference for formal services. Conversely, cluster D has a relatively poorly developed formal LTC system, with heavy reliance on informal care despite the relatively poor support (out of necessity, one might say). Clusters A and C combine high informal care use with substantial support, which can be viewed as the ‘expected’ outcome of countries that favour informal care, and support it accordingly.

Figure 2. Star plot of the use and financing typology



Source: Markus Kraus, Monika Riedel, Esther Mot, Peter Willemé, Gerald Röhring and Thomas Czypionka, *A Typology of Long-Term Care Systems in Europe*, ENEPRI Working Paper No. 91, Centre for European Policy Studies, Brussels, August 2010 (www.ceps.eu).

Comparison of the two approaches

Making assumptions on preferences, the typologies resulting from the two approaches can be ordered according to attractiveness of their systems for elderly in need of care. Despite the differences in explanatory factors, the two typologies yield the same result for 10 out of 14 countries for the attractiveness ordering. Denmark, the Netherlands and Sweden have a very clear

profile of paying a lot of attention to the interests of LTC users. It is not surprising that they end up in the most preferred category in both typologies. Other countries, like Hungary, are clearly less attractive to LTC users. Some other Eastern European countries do not spend a lot of money on LTC, but their organisational depth is quite high, which leads to a higher ranking in both typologies. Examples are the Czech Republic and Slovakia. The ordering is really dependent on the approach only for Belgium, France, Germany and Italy.

Compared to existing typologies, the results are based on richer datasets. This can lead to a different clustering of countries. The clustering of the Nordic countries Denmark, the Netherlands and Sweden seems to be the most robust under different clustering approaches.

3. Policy implications and recommendations

The data collection process once again demonstrates the scarcity of long-term care data suitable for international comparisons, despite the growing need for planning and coordination in order to cope with demographic change. It turned out to be very difficult to collect precise quantitative information on LTC according to predefined definitions for a large selection of European countries. As could be expected, data collection was more problematic for the new member states. However, the project team also encountered serious problems for old member states. This problem was aggravated by the well-known problem that definitions of different settings of care vary considerably between countries, last but not least due to differences in historical development of the national systems. Therefore, one has to be cautious when using data from different national data bases within one analysis/approach.² Qualitative data on system characteristics,² however, are more readily available. Overall, the problems encountered during this project led the project team to believe that the task of data collection/generation would constitute a project in its own right.

The project team recommends setting up an international database on provision and use of long-term care or putting effort into the improvement of an existing one, because well-known databases such as *OECD Health Data* or *WHO Health For All* primarily cover health but long-term care only to a lesser extent. A prerequisite for such a database would be a common understanding of the definition of key variables. This endeavour could build upon work done by the OECD in the course of the SHA project, where international definitions for key characteristics on financing long-term care are being developed. The project team does not see any advantage in constructing another thematic database separated from related existing databases, but rather expects that it might be more efficient to extend an existing data collection like *OECD Health Data*. Recognising the sometimes close connection between health and long-term care calls for close coordination of data collection and definition issues. Availability of international comparable quantitative data would significantly improve the effectiveness of further research activities in the field of long-term care.

The analysis has shown that characterisation of LTC systems on the basis of simple characteristics (like insurance-based or tax-funded) is incomplete and can be misleading. An LTC system is a complex interplay of many factors that need to be taken into account to assess its performance. The cluster analyses indicate large differences between European LTC systems. These differences are based on historical developments and diverging preferences (e.g. formal vs. informal care orientation), as well as on the national economic situation (e.g. low vs. high public spending). Even countries that seem very much alike in economic background and culture can end up with very different LTC systems. The new member states are practically all constrained in their funding of long-term care, but the differences in organisation are considerable. The goal of this work package was to derive a typology of systems of care; the even more relevant question of how system characteristics relate to performance will be analysed in Work Package 7 of the ANCIEN project.

² The expression 'system characteristics' comprises financing, organisation and use of care.

The project team recommends directing research efforts towards the desired results of LTC systems. The different and complex systems that have evolved in the EU may be much more comparable regarding the outcomes that they strive for. Unfortunately, there is no general proxy for the outcomes of LTC systems available that could perform the role that life expectancy or healthy life expectancy plays in the assessment of health care systems. Work Package 7 will try to make progress in answering the question of outcomes. Considering the historical and cultural differences, it is unrealistic to expect that countries could copy each other's systems, but they can still learn from each other about what works and what does not.

4. Research parameters

ANCIEN (Assessing Needs for Care in European Nations) is a research project that concerns the future of long-term care (LTC) for the elderly in Europe and investigates two questions: 1) How will need, demand, supply and use of LTC develop? 2) How do different systems of LTC perform? This Policy Brief summarises findings from Work Package 1 of the ANCIEN project which fulfils two objectives: First, the collection of comprehensive information on national LTC systems in 21 EU member states, and second, using the collected data to derive a typology of national LTC systems. The typology and the categorisation of member states according to these 'types' were then used to select representative countries for further analysis. These further analyses use state-of-the-art demographic, epidemiologic and econometric modelling to interpret and project needs, supply and use of LTC over future time periods for different long-term care systems.

An essential task of Work Package 1 was the collection of valid data and the generation of a suitable database, because no overall data source, such as e.g. OECD Health Data or MISSOC, provides a complete and comparable set of the required information on national systems of long-term care. International databases were available only for some questions (SHARE data on living conditions of the population 50 or more years of age, the AWG Ageing Report 2009 for information on public funding, and population data from EUROSTAT). The more important sources of data, however, were national data collected by project partners for each of the 21 EU member states. For this purpose a substantial questionnaire was developed and country reports on national LTC systems were produced; the latter are available for download by the general public.

Two main problems arose during the data collection process. First, the availability of quantitative data was rather limited, even when cooperating with national experts. This was particularly true when more detailed or specific information was being asked for. In many countries, especially in Eastern Europe, such data simply do not yet exist. Second, the comparability of the data was limited. Most of the delivered quantitative data do not refer to a single source (e.g. international databases vs. national reports) and do not necessarily cover the same settings of care.

Due to the above described data problems, two typologies were derived: The first approach relies on qualitative information describing organisation and financing of the care systems only, but includes the full set of countries (21). Information on organisational characteristics was used to construct an index labelled 'organisational depth', and a second index was constructed to cover financial generosity of LTC systems. The subsequent formal cluster analysis then uses these two pseudo-metric measures. The second approach is based on quantitative characteristics covering use and financing of care and is restricted to a subset of countries (14 out of 21) due to data limitations. This approach also applies formal cluster analysis to derive the typology.

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Assessing Needs of Care in European Nations



FP7 HEALTH-2007-3.2-2

L launched 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, epidemiologic 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.

The project started with collecting information and data to portray long-term care in Europe (WP1). 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 (WP2). WP3 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 behavioural 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 backbone 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. 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.

For more information, please visit the ANCIEN website (www.ancien-longtermcare.eu) or the ENEPRI website (www.enepri.org).