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A framework for measuring long-term care expenditure in Europe

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Introduction

Expected future increases in public expenditure on long-term care are an important policy concern in many European countries. According to a recent Eurobarometer survey (Eurostat 2008), many European citizens worry that they might not get affordable and good quality services when in need of care. Many state that families have to provide too much of the support that older dependent people need.

The large differences between European countries in spending levels and in the quality of services for older people and the expected changes in living arrangements and family roles in ageing societies call for close monitoring of expenditure trends and of the underlying factors that explain differences in spending between countries and spending trends over time. Yet, the international comparison of long-term care expenditure is a fairly new research topic. It has in recent years been advanced by a number of studies on age-related public-expenditure projections (European Commission 2006; OECD 2006a; Comas-Herrera and Wittenberg, 2003) and comparative policy studies and structural overviews (Pacolet 1998, OECD 2005a; Kerschen et al. 2005, European Commission MISSOC-Info 2006/2 and 2008a). Moreover, improving data availability and comparability for long-term care expenditure is a core concern of the joint Eurostat-OECD-WHO data collection on health accounts (OECD 2006b) and of the international revision process of the manual “A System of Health Accounts” (OECD 2008a).

This paper examines differences in long-term care expenditure between countries and trends over time. It starts by analysing data availability and data quality from existing international sources, namely from the OECD and Eurostat. Various ways of standardising expenditure levels for international comparisons are discussed and what factors might explain the large differences in spending levels between European countries. Next, we will discuss expenditure trends over time. Based on this analysis, the paper finally comes up with recommendations about a broader framework for indicators to support the analyses and understanding of the factors behind differences in spending levels and on the drivers of spending growth over time, including both monetary and non-monetary indicators.

This paper provides a snapshot on ongoing research at the *European Centre for Social Policy Analysis and Research, Vienna*, to construct an indicator set for monitoring trends in ageing populations¹. This work is undertaken as part of the project “Mainstreaming Ageing – Indicators to Monitor Implementation”, which supports administrations and policy observers in their monitoring of the European Regional Implementation Strategy of the Madrid International Plan of Action on Ageing².

¹ The results of this project will be published in two separate reports (Huber, Ricardo and Hoffmann, 2009; and Ricardo, Hoffmann and Huber, 2008).

² See <http://www.monitoringris.org/skel.php?id=58> and http://www.euro.centre.org/detail.php?xml_id=81 “Europe” refers here to the more than 50 countries of the United Nations Economic Commission for Europe (UNECE), which includes – among others - Israel, Canada and the US.

Long-term care: a complex area of social policy

Long-term care brings together a range of services for people who depend on ongoing help for an extended period of time with the activities of daily living. This can be due to chronic illness, physical or mental disability or as part of care at the end of life. These services include help with everyday activities of housekeeping, transport, self-management and social activities but have frequently a focus on more intensive personal care such as bathing, dressing, getting in and out of bed or chair, moving around and using the bathroom. In all European countries, providing these services is a shared task between public and privately funded formal services and of family and friends who still provide the majority of care hours for dependent older people in all European countries (OECD 2005).

Figure 1 provides a broad view on long-term care services that brings together a range of individual services. Clearly, not all of these services are available in all European countries (other than as small-scale pilots) and each country has developed its own mix of services, together with different ways of organising service delivery at the boundary between health and social services (Leichsenring and Alaszewski 2004). There has in many countries been a trend over the last two decades to increase the diversity of services, the level of public provision, and of professionalisation and specialisation.

Care provided in institutions is now often available in a range of facilities from special wards or in the form of buy-in services in assisted living arrangements and group homes, to facilities where qualified nursing staff is present around the clock. It finally includes intensive nursing and social care units for people with severe illness, dementia or for people at the end of their lives.

<Figure 1: Long-term care: a complex array of services>

Services of home care have developed more unevenly, and reforms of health and social systems are ongoing in many countries with the goal to improve the range of services – and increase public spending level - to support informal care giving in order to enable people to stay longer in their homes and mitigate health and social risks for their family care givers.

Moreover, in many countries, people with long-term care needs still face problems of access to mainstream health care, - services which can be essential to stabilising the functional status of dependent persons, including adequate primary care, medication and transport to reach services and more needs to be done to prevent age discrimination and improve available services (Huber, Stanciole, Bremner 2008). This also raises the issue of better integration between health and social services.

Differences in spending levels between countries

Available evidence suggests that the variation in public spending levels on long term care in European countries is substantially higher compared with differences in the spending levels for acute and preventive health care (e.g. when measured as share in GDP). What are the factors behind these differences, or to which extent are these due to measurement problems? This section discusses international data sources and presents a consolidated data set that includes own estimates from national sources before analysing spending differences and trends over time.

There are currently two regularly updated international data sources that report on long-term care expenditure in international comparative tables: OECD Health Data (which now includes results from the joint Eurostat-OECD-WHO data collection on health accounts) and the Eurostat European System of integrated Social PROtection Statistics (ESSPROS) database.³⁴

Arguably, data on long-term care expenditure are among the more problematic data within these data collections and it is now widely recognised that the international comparison of long-term care expenditure is confronted with data problems (e.g. OECD 2005c, 2007 and 2008a).

Data availability and comparability is hampered because the provision of long-term care is fragmented in many countries and only an emerging social policy field in some. In addition, responsibility for organising (or even funding) of social services of long-term care is in many cases the responsibility of regional or municipality governments, often with limited data availability at national level.⁵

The following discussion starts with a comparison of data from both sources, before a common data set is introduced, which is based on secondary analysis of these data sets and of national data and publications complemented by own estimates. The further analysis will then build on this synthetic data set.

Long-term care expenditure aggregates

The OECD data collection in its present form (see OECD 2006b) distinguishes under “total expenditure for health” between public and private expenditure for long-term care in both a home-care versus an institutional setting. The OECD recommended definition (OECD 2008a, p.9) includes under the “health” function palliative care, long-term nursing care, personal care services and services in support of informal (family) care (including cash benefits) but excludes under the “health function” part

³ See http://www.oecd.org/document/30/0,3343,en_2649_34631_12968734_1_1_1_1,00.html and http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136184,0_45572595&_dad=portal&_schema=PORTAL

⁴ The OECD publishes its own version of the ESSPROS data in its Social Expenditure Database (SOCX), which includes non-EU OECD countries (OECD, 2007). Its current version shows data up to 2003. There is less detail of reporting for some countries. For example, SOCX does not allow for the identification of LTC spending for Canada and the US. It is therefore not considered here.

⁵ That long-term care is still an emerging policy issue in many countries is also illustrated by the fact that “long-term care” is not used as functional category in ESSPROS.

of lower level care - mainly help with instrumental activities of daily living restrictions (such as with home making, transport, medication, personal communication, finance, shopping and cooking). The OECD definition includes, however, care allowances and similar cash benefits of consumer choice programmes in total long-term care spending under the “total health spending” aggregate, irrespective on which services – including informal care – this cash may be spent. In order to arrive at a more comprehensive picture on long-term care, and because administrations in member countries differ substantially on where they draw the boundaries of “LTC” in their reporting to OECD, the OECD Secretariat has recently introduced an additional spending category of “social expenditure on LTC”, which complements the LTC spending under the “total health” aggregate by adding spending on lower-level care, such as “home-help and care assistance, residential care services, and other social services” (OECD 2008a, p.10). It is data that follow this broader definition which seems to be the more relevant for policy analysis of long-term care in a comprehensive perspective, versus the more narrow definition under the “health” aggregate.

For the analyses of long-term care an important advantage of the OECD data collection is that a specific functional category is devoted to this policy field. Unfortunately, the OECD does currently not distinguish between care provided to older people (“elderly care”) versus care provided to dependent people below retirement age - although the reporting on expenditure by age and sex for all functional categories is high on the agenda for future joint data collections by Eurostat, OECD and WHO. This joint data collection also provides additional information in the form of two-dimensional tables that allocate expenditure by function to an array of provider industries, and to a number of public and private sources of funding, thus allowing for additional analysis, once the currently existing boundary issues have been resolved.

The ESSPROS system dates back to the late 1970s and was developed by Eurostat in co-operation with EU Member States. It is formally regulated since 1997 (Eurostat 2008). The ESSPROS database on social expenditure does not use the label “long-term care” as a distinct category of social expenditure. Under ESSPROS, long-term care related social expenditure is mainly included in the following three sub-functions of spending:

1. Accommodation
2. Care allowances, and
3. Home care (under Disability)/Help with ADL restrictions (under Old Age).

The first two sub-categories can be found under both the “old age” function (which brings together services for people of retirement age) and under “disability”, which reports on expenditure for people below retirement age. ESSPROS is the only data source that currently has LTC-related data on social spending for 30 European countries (EU 27 plus Iceland, Norway and Switzerland) with time-series from 1990 to 2005 (as of July 2008).

Tables 1 to 3 show for the year 2005 the detailed results reported in OECD Health Data 2008 versus long-term care related social expenditure categories of ESSPROS.

Table 1 compares total public expenditure levels as reported in the OECD and the ESSPROS data collections. Overall, the spending levels for only few countries (eg Austria, Denmark, Hungary, Poland) seem to be broadly consistent between the OECD and the ESSPROS data set, taking into account that some LTC spending should by definition only be included in OECD estimates of “social LTC spending” but not under the more widely reported category under the health spending function. In practice, as we will see below, for some countries there are higher expenditure reported by OECD, pointing to an issue of under-reporting in ESSPROS in these cases.

<Table 1: Public expenditure on long-term care as share of GDP, 2005>

Among the OECD countries that are covered in both data collections, four do not report on public long-term care spending (Greece, Ireland, Italy and the UK). For some, obviously large parts are not reported under “total public long-term care spending”. For example, home care is not included for the US, and a large share of LTC spending for Sweden seems to be missing.

For some countries, a substantial share of LTC spending apparently is not allocated to any of the corresponding social expenditure categories of ESSPROS. E.g. this is the case for Belgium, Finland, France, Luxembourg, and the Netherlands. For these countries, some LTC spending might have been allocated under the sickness function, or under the residual function of “social exclusion not elsewhere classified”.

Although the ESSPROS manual (Eurostat 2008) requires that expenditure under individual social programmes are sub-divided by social functions in case they cover more than one function, it seems this has in many cases not been implemented in actual reporting practice. For example, the allocation of long-term care spending to either the disability or the old-age function seems to be deficient in a number of cases. Clearly, this is the case for countries where either of the categories is very small. Large programs have then been allocated to either function without splitting expenditure by functions.

More generally, the relatively high percentage of spending under the “disability” function may be due to the fact that some social programmes have been completely allocated under this function rather than been split between both functions. For example, it is not plausible that only 0.3% of GDP is spent in Germany on LTC for older people, given the steep increase of the age-specific rates of recipients of the German long-term care insurance system for older age groups. This is a critical shortcoming of the current reporting in ESSPROS. The corresponding indicator of “public expenditure on elderly care as %GDP” which is included in the system of social indicators of the European Union in the sub-set of “indicators to monitor sustainable social development” clearly needs improvements if used in this way.

Major discrepancies between both data sets also exist when we compare the two main spending categories that the OECD data set distinguishes: expenditure on home care (Table 2) and expenditure in an institutional setting (Table 3).

<Table 2: Public expenditure on long-term home care as share of GDP, 2005>

<Table 3: Public expenditure on long-term care in institutions as share of GDP, 2005>

In analysing these comparisons, we have, however, to keep in mind that ESSPROS does not directly support these two spending categories. Although the spending categories “home help” (under disability) and “help with ADL restrictions” (under old-age) should mainly refer to benefits provided in a home or community based setting, it is much less clear, to which extent the benefits in cash (recorded under “personal care allowance”) can fully be allocated to home care. As a general observation, both reporting gaps and simplifications in allocation of spending to categories seems to become more problematic for the more detailed breakdown of ESSPROS spending shown in Table 2 and 3. For example, the Netherlands currently does not support this level of disaggregating in either the OECD or the ESSPROS data set. In the OECD data collection, for some countries, most of home care expenditure seems not to be reported as part of OECD health spending (e.g Hungary, Slovak Republic).

In addition, reported home care benefits in kind appear very low for a number of countries, such as for Austria. Overall, countries differ widely in their availability and spending levels of home care programmes for the elderly (OECD 2005, EUROFAMCARE 2004), so that it should be a priority to improve this spending category in international data collections to remain gaps in reporting that are evident in Table 2.

A consolidated data set for international comparisons of long-term care expenditure

As the comparison of data from different sources has shown, there is no single international data set that can be directly used for international comparisons. Wherever data are available and could be accessed from national data, these have therefore for the subsequent analytical purposes be used for additional quality checks, besides those described above.

An important task in this respect was the checking of consistencies of trends over time that are reported nationally versus those found in the OECD and ESSPROS data. For a number of countries, a selection of either OECD or ESSPROS as main data sources was then decided, keeping in mind the differences in methodology and definitions used.

Finally, for countries where data were incomplete or too doubtful from these international sources, it was decided to go back to original national statistics and publications and to undertake own (approximate) estimations, as this seems currently the only way out before international data collections have improved data availability and quality correspondingly. This has been done for the purpose of the following analysis for Austria (to complement spending on low-level care not included in OECD data), Israel (not covered in OECD or ESSPROS), and for France, Ireland, Italy, Poland, Spain, Sweden, and for the US. For this purpose, the latest version of the OECD recommendations on definitions (OECD 2008a) have been used as point of reference (see Box 1 for more detail, and also Ricardo, Hoffmann, Huber 2008, forthcoming).

Box.1 Overview of additional data sources and estimation methods

This box comments on the additional data sources used with the example of a few countries. Recent white papers or other comprehensive stock taking of administration of the situation of care services and the situation of older dependent people have been drafted to support ongoing reform of health and social care systems in a number of countries:

France made a general overhaul of its long-term care social protection system in 2002, introducing a benefit specifically aimed at addressing care needs of older dependent people, the /L'Allocation Personnalisée d'Autonomie/ (APA), which will gradually replace other existing benefits. Figures for France were taken from the dependent age people elaborated by Cour des Comptes (2005), which undertook a detailed estimate of all public expenses associated with dependency. The figures presented in Table 4 also include estimates on tax related social expenditure in long-term care, such as tax allowances.

In the **Spanish** case, long-term care is address not only by the central government but also by the regional governments, resulting in a large number of benefits and variations among regions. In 2005, the Spanish Ministry of Social Affairs and Labour edited a *White Paper on Dependency*, providing an estimate of public expenditure on a central as well as regional level.

Italy also has a fair degree of variation of how long-term care is addressed in its several regions, for which reason the figures of public expenditure were taken from the detailed estimates presented in the report on trends of the pension and social-health pensions systems, published annually by the Ragionaria Generale dello Stato (2006).

NOSOSCO, the **Nordic Social-Statistical Committee**, publishes a comprehensive set of information on scope, expenditure and financing of social protection in the Nordic countries, dating back to 1995. Figures on public expenditure for Sweden were taken from their yearly report (NOSOSCO 2007), which provides a comparable and detailed framework for social expenditures in the Nordic countries.

Based on the “mixed” strategy mentioned above, a number of 22 countries could be included in Table 4, which provides a snapshot of the current data set for international comparisons that will be analysed below.⁶

<Table 4: Structure of public expenditure on long-term care>

The expenditure levels shown in Table 4 confirm the wide variation of spending levels in Europe. A group of Nordic countries (Denmark, Sweden, Iceland and Norway) are the highest spending countries, although at least some of the high spending on the accommodation function will likely be on residential care without substantial long-term care provision, and more research will be needed to better delimitate this boundary. Our findings confirm broad overall spending rankings of other international comparisons (OECD, 2005). Besides the Nordic countries, the UK

⁶ Work is ongoing to include a number of important (but difficult) country cases in this international comparison, such as for the Netherlands, as well as the checking and complementing of additional detail (e.g. the breakdown by type of sources for the UK (England), and Israel).

and Italy also report relatively high expenditure levels. On the other end of the spectrum, a number of southern and Eastern European countries have rather modest public expenditure on long-term care.

As Table 4 shows, countries with similar expenditure levels can have quite different structures of expenditure on people living at home versus residing in an institutional setting. The statistical picture on type of benefits has become more complex with the growing number of public programmes that offer benefits in cash. Overall, there has been an increased importance attached to the development of services that allow for people to receive care in their home environment, or to the provision of cash benefits that allow for a greater choice and empowerment of beneficiaries. However, institutionalised care continues to account for the greater part of the expenditure in a majority of countries.

For the 17 countries with public spending of around 0.9% of GDP or higher, public spending on care provided in institutions ranges from 26% in Italy and 27% in Denmark to more than 90% in Iceland. Of the 20 countries with available breakdown by type of benefits, six report a share of spending in institutions below 50%. A number of countries which have opted for very different models of financing and providing of long-term care have similar outcomes in terms of spending share on institutions, such as France, Germany, Poland, Spain, Sweden and Switzerland.

Although the figures on care allowances depicted in Table 4 refer to a very diverse set of benefits, these allowances represent now a significant share, if not the majority, of total expenditure in several eastern European countries, in Austria, Germany and Italy. The rules governing care allowances differ between countries with different sets of restrictions, for example on how these can be used: with or without a choice to spend them on formal services or to keep them in the household budget; to employ personal assistants who can (or cannot) be family members, or with no restriction attached on how they can be used (e.g. Austria).⁷

Moreover, countries differ in the way cash benefits are distributed to a set of defined levels of formally assessed care needs. In some countries the value of the care allowance does not change much but most beneficiaries are concentrated in the higher payment level, such as in the Swiss case, while others have a broader spread of benefit spending according to dependency levels, although most beneficiaries tend then to be concentrated on the lower-level care categories (Figure 2).

<Figure 2: Countries differ in the way cash benefits are targeted, 2005>

Because of the different ways, in which cash benefits (and other benefits for home care) are targeted to those most in need in some countries, or spread more broadly in others, numbers of beneficiaries are not (good) predictors of differences on overall spending on home care benefits (cash and services together) (OECD, 2005). What Table 4 clearly shows, is the different role cash programmes play: they are the dominant spending category in some countries (e.g. Austria, Estonia, and Slovenia), but are offered to only a small share of all long-term care beneficiaries in some countries (e.g. Finland and Sweden).

⁷ See Lundsgaard, 2004, for a classification of cash-schemes for long-term care.

A related question is, how well numbers of recipients of care in institutions can explain differences in spending levels between countries. The correlation between recipient numbers and expenditure is shown for 19 countries, for which we currently have both recipient and expenditure number of fairly good quality.⁸

Figure 3 shows that the number of recipients of institutional care can only explain part of the overall differences in public long-term care expenditure in institutions. While there is clearly a correlation between these two variables, countries with similar shares of population aged 65 and older living in institutions may have very different expenditure levels, hinting at the influence of other variables. Thus, Sweden and Iceland, countries for which care provided in institutions usually means residing in a single-bed room, spend significantly more than their share of recipients would explain. Denmark and Finland, however, spend less in residential care than their share of recipients would indicate. Perhaps most important is the observation is that a groups of countries with low spending also has very low rates of institutionalisation (which is further confirmed by Eurostat Census 2001 data)⁹. In these countries, care for dependent people still remains very much a family responsibility with corresponding expectations and family values (see e.g. the national responses to corresponding questions on who should provide care in the 2007 Eurobarometer survey, Eurostat 2008).

<Figure 3: Numbers of recipients explain only part of differences in public long-term care spending in institutions>

Besides quality of care provided, which is correlated with higher unit costs, such as better amenities and greater privacy in nursing homes, and higher staffing rations, other issues such as the role of private financing in the form of cost sharing by recipients or their families can add to explaining the differences observed. The expenditure on publicly provided care shown in Figure 3 (and in Table 4) do by definition not include private cost-sharing for publicly provided services.

In the case of Norway, Germany and most notably Switzerland, the inclusion of private expenditure in institutions would provide a different picture of these countries. For example in Germany, public long-term care insurance does only pay for the service part of nursing home expenditure. Public expenditure on the accommodation part of overall cost is limited to means-tested social assistance payments for people who can no longer cover these costs from their private income or property.

Means-testing of public benefits for dependent people with long-term care needs is in place in many countries and cost-sharing requirements are frequent where benefits are universal (MISSOC 2008). In addition, private households may choose to pay out of their own pocket for higher-quality services or for additional services to those offered under public programmes. They may also spend from their personal income to increase the amount of time of paid care assistants that they can afford from publicly

⁸ See Rodrigues, Hoffmann and Huber, 2008, for data sources and estimation methods for numbers of recipients, and a discussion of alternative national and international sources – including census data and other surveys.

⁹ See Huber et al 2009, forthcoming.

funded care allowances.¹⁰ For these reasons, private expenditure contributes substantially to overall spending on long-term care in many countries (Table 5).

<Table 5: Public and private expenditure on long-term care, 2005>

Not surprisingly, private spending is highest for the US and in the Switzerland but it is also relatively high in some countries with universal public programmes for long-term care (Finland and Germany). Unfortunately, information on private expenditure is even more patchy, with the OECD currently the only data source.¹¹

Expenditure trends over time

The new data set collected under the research that is examined in this paper also covers time series – ideally for at least a ten-year period (1995 to 2005). The data on spending trends assembled so far confirm the picture of earlier international comparisons, that there is no uniform trend in public spending on long-term care in Europe (OECD 2005).

For a number of countries, expenditures have been growing fast (Figure 4). For example, this was the case in Iceland, Luxembourg, Norway and Switzerland. Not surprisingly, expenditure have increased when new programmes were introduced (Luxembourg, Germany at the beginning of the observed period of time).

<Figure 4: Trends in public expenditure on long-term care as share of GDP, 1990 to 2005>

Observed expenditure are remarkably flat for a number of countries at the lower spending end, such as Lithuania, Poland and Slovenia. But they have only remained fairly constant for some of the countries closer to average spending levels, notably Finland and Germany and it is complex to disentangle the reasons why this has been the case. For Germany (and for Austria, which is not shown in Figure 4), the universal long-term care programmes have contained cost mainly by freezing benefit levels over extended periods of time, thus creating cost-pressure on providers and private cost sharing. Demographic events (the ageing of a comparably small cohort of octogenarians due to the first and second world war), and some “benefit creep” (stronger concentration of beneficiaries in lower levels of care) may also have contributed to this outcome. In both Austria and Germany, reform of public long-term care financing has been enacted or is currently under discussion to increase benefit levels, which will lead to steeper spending increases. For the recent stabilisation of spending in Sweden, the stronger targeting of benefits on those most in need has played a role.

¹⁰ This may include spending on a grey market of undocumented care assistants, most of which come from foreign countries and have no legal work permission. Although this spending should be accounted as private expenditure on care under SNA and SHA rules, it is usually not included in national estimates or international data sets. See also the comment below on the Austrian case study.

¹¹ The possibility to come up with estimates based on the SHARE and EURO-SILC surveys needs to be further investigated.

More analysis will be needed to analyse expenditure trends compared to increases in numbers of beneficiaries or in their age structure, keeping in mind that the construction of a data set which is both fairly comparable between countries, consistent over time and with sufficient consistency between monetary and non-monetary information is very challenging. Other indicators will be tested to make sure the cyclical component of GDP is not distorting the picture.

For some countries, where statistical work on improved care indicators and expenditure has only started recently, it will not be possible to assemble longer time series. Examples are Belgium, France and Italy.

Age-standardised expenditure estimates

Per-capita expenditure on long-term care increases almost exponentially for the highest age groups in countries that have substantial overall public spending (Figure 5). This observation has been used as main input for projections of future spending paths on long-term care in Europe (OECD 2006a, European Commission and ECFIN 2006). In contrast to health expenditure, there seems currently not to be much hope among researchers that compression of disability on a fixed period before death or overall declining disability trends will change the current pattern of steep expenditure increases for higher age groups for the next two or three decades (Felderer, Zweifel and Werblow 2006; Lafortune et al. 2007 on disability trends). At least, this may hold true as long as no medical break through in the treatment of dementia will be achieved. The increase in dementia prevalence in old age is high, and it accounts for an increasing share of overall disability in the age-profile of care recipients. Moreover, the balance of evidence suggests that age-specific prevalence rates of Dementia are fairly consistent between countries, in particular for higher age groups (Alzheimer Europe 2006).

Table 6 shows the example of two major studies that include expenditure projections for EU countries. It should be noted that both projection exercises build on ad-hoc data requests by the European Commission and the OECD, respectively, both for the expenditure profiles, and for the overall public spending. Given the challenges to collect long-term care expenditure data for international comparisons that we have discussed in this paper, it is not surprising to see that the results of these ad-hoc data collections differ both from each other, but also from the international data sets analysed above, with the OECD having the more realistic 2005 start values than the ECFIN projections. The reported values to the ECFIN data request seem to cover in some cases only part of public long-term care spending. In the case of Austria, for example, reporting has apparently only covered the federal long-term care allowance programme but none of the other federal or any of the state-level spending (on care facilities, or in form of the state-level care allowance programmes).

<Table 6: Estimated expenditure on long-term care and projections until 2050>

The age-related public expenditure profiles that have been collected for the projections discussed above illustrated the marked differences between new and old member states (Figure 3) that we have already discussed above in terms of overall

spending levels. They also show that the expenditure are more concentrated towards higher age groups for women than for men.

<Figure 5: Age-related expenditure profiles for long-term care in GDP per capita, EU15 and EU10 averages, around 2003>

This section illustrates how the expenditure profiles collected by the European Commission for the 2006-round of estimating age-related public expenditure projections for 25 European Union Member States (European Commission, 2006, p.147) can be used for standardising expenditure levels between European countries. This serves as an illustration how expenditure levels would change under different assumptions in order to provide new insights in the currently observed diversity of expenditure ratios across Europe.

Based on the age-related expenditure profiles for 15 countries, as well as information on demographic structure of the old-age population, we first calculate an age-standardization for expenditure ratios based on a EU standard demographic structure. The purpose is to analyse the impact of differences in country specific population age-structures on currently observed expenditure ratios. The age-standardization uses the (weighted) average population age-structure for the EU25 (see Figure 6), which is then applied to the country specific age-related expenditure profiles.

Through this age-standardization procedure it is possible to analyse how changing the age structure of the old-age population to a EU15 average would cause the expenditure ratios to change.

The results of this age standardization on overall public expenditure levels on long-term care are depicted in the scatter plot diagram of Figure 6. The further countries depart from the 45 degree line, which stands for no differences between observed expenditure ratio and expenditure ratio with age standardization, the greater the impact that either age or expenditure standardization will have on expenditure levels.

<Figure 6: Age-standardised public expenditure levels on long-term care, 2005>

As Figure 6 shows, the differences in expenditure levels between observed and standardised expenditure ratios are relatively modest in many cases, with some notable exceptions:

- The greatest impact on the expenditure ratio from having its old-age population structure similar to the EU15 average would be for Sweden, where current expenditure ratio would be lower by almost half a percentage point of GDP;
- Luxembourg, Netherlands and Czech Republic would have the highest upward change on their current expenditure ratios from shifting to the EU15 average old-age population structure, although that change would still be relatively modest.

Complementary to this age-standardization, an “expenditure standardization” procedure was also carried out, examining the effects of a hypothetical assumption that all countries would immediately “spend up” to the EU average spending profile

(see Figure 5 above), by maintaining their country-specific demographic age structure.

By analogy to the above-mentioned procedure, the expenditure standardization allows for differences on current expenditure ratios to be examined through the impact that the age-related expenditure profiles of each specific country have on expenditure levels. In this case, a common age-related expenditure profile, equal to the EU15 average, was applied to country specific old-age population structure (Figure 7).

<Figure 7: “Spending up to the EU 15 level” would result in large increases of public LTC spending in Europe>

From Figure 7, it is obvious that the assumption that countries would spend at EU15-average levels (expenditure standardization) would have a much greater impact on expenditure ratios (some could be increased by a factor between 2 to 4), than changing the age structure to a common EU25 average (age standardization). For some countries in particular we find that:

- Denmark, Sweden and Netherlands would show a reduction of overall expenditure in case of convergence to EU15 average levels, due to the high age-related expenditure profiles for these countries in comparison with the EU15 level;
- Belgium, Luxembourg and Germany have currently significant ratios of expenditure, but these would double if they were to replicate the EU average expenditure rate and structure;
- Eastern European countries, except Slovenia, would have the highest impact in relative terms on their current expenditure ratios from “catching-up” to EU15 structure;
- Finland and to a lesser extent United Kingdom and Slovenia (the latter being the Eastern European country closest to the EU15 average spending structure) would not change significantly their expenditure levels if they were to “converge” to EU15 spending structure;

The potential to impact on current expenditure levels would be particularly significant for EU 10 countries, if changes were to be introduced in country’s long-term care systems, which would bring them to “converge” to the EU average. In comparison, the age standardisation of expenditure ratios to the EU25 average would not play such a big role in changing the current expenditure ratios.

These findings are not to say that the potential impact of demography in long-term care expenditure is to be underestimated for future trends, when the growth of the number of old-old people in the population will accelerate. But they could be read as a reminder of the potential even larger influence that expansions of benefit levels and the setting up of more comprehensive long-term care systems could exert on future spending levels.

Finally, age-related expenditure profiles, comparable with the overall expenditure ratios, which the ones used in our standardization procedures only accomplish to a

limited extend, would go a long way in shedding some light on differences in expenditure levels.

Statistical challenges of long-term care estimates: the Austrian case study

Austria is an interesting case study because of its strong focus on care provided at home, and relatively low rate of institutionalisation. For those living at home, 80% of dependent older people receive care predominantly from relatives. Only 9% of those in need of care receive help from professional caregivers only (Schneider 2006).

Figure 8 shows the dominance of the care allowance programme as main way of funding long-term care. However, for those in institutions, the vast majority of people are covered by additional social assistance payments. Austria has a strong federal structure, with much of the responsibility of care infrastructure devolved to its federal states.¹² As a result, statistical reporting on recipients and expenditure on the federal level differs between states, with important gaps in information for some states in any reporting period, making it especially challenging to come up with consistent time series.

<Figure 8: Flows of long-term care financing in Austria, 2004>

Figure 8 also illustrates that the statistical picture of the public-private mix of expenditure very much depends on how to account for the spending on LTC services of home care by households “out of” the care allowance that they receive. We follow here the usual practice to consider these as “public” spending, rather than “private” spending.¹³ Ideally, expenditure by private household that are “covered” by cash benefits of care allowances should be separated from (additional) out-of-pocket expenditure – either by households who do not receive care allowances, or by households to top these up.

An important private spending share, which however is difficult to estimate, has in 2004 been in the form of payment for undocumented care assistants on a “grey market” of care assistants, most of them from neighbouring countries in the East, who arrive with tourist visas, usually without a work permit, and not covered by social protection in Austria. For care provided at home, Figure 8 shows that there is a corresponding “grey” zone of spending of both part of the care allowance paid to private households, plus of additional out-of-pocket spending.¹⁴ Following National Accounting standards, this additional out-of-pocket spending should be recorded as part of total spending on long-term care, but this is obviously difficult to achieve.¹⁵

¹² Even basic rule on means-testing can differ between states: for example in two states, the economic situation of children is taken into account for the means-testing of benefits for their parents.

¹³ Here clear guidelines on how to put cash-benefits in the picture should be part of the new guidelines of the joint Eurostat-OECD-WHO data collection.

¹⁴ Changes in the legislation in 2007 and 2008 now address this issue with the goal of “legalising” the employment of formerly undocumented care assistants.

¹⁵ Other countries where this “grey market” plays an important role within the long-term care system are Germany and Italy (Huber 2008a).

“Valuing the invaluable”

Moreover, a number of attempts have been made in the literature to “value the invaluable” (Gibson and Houser 2007) by attaching a hypothetical economic valuation to informal, unpaid care. There are different approaches that can be followed (Schneider 2006):

- Measuring informal care hours and their valuation at market prices (replacement cost);
- Opportunity cost: earnings foregone (work hours foregone; leisure time foregone);¹⁶
- Contingent valuation: willingness to pay/accept

Using the first method for Austria, the value of “replacement” cost at the end of the 1990s is between 2 and 3 bn Euro, compared with 2.6 bn Euro of reported public LTC spending in 2000.¹⁷ It is important to note that these estimates are not included in long-term care expenditure estimates, but only the “paid for” part in case there is a corresponding cash benefit in the form of care allowances.

Conclusions on a core set of indicators to monitor long-term care systems in Europe

This paper has argued that the analysis of cross-country differences in expenditure on long-term care and the monitoring of trends over time is a complex task. It is currently both limited by data availability and data quality of expenditure data themselves. But it also suffers from a lack of reliable data on recipients and basic background data such as on changes in living arrangements. Moreover, there is uncertainty about the future development of informal care and gaps in data to monitor epidemiological trends of dependency, in particular for older people.

Figure 9 maps the most important data domains that would be required to analyse expenditure data in the context of non-monetary indicators of long-term care.¹⁸ These could be seen as a minimum set of information that should be gathered on relevant government levels, with a constant effort to improve consistency and standardisation of data domains in order to allow for trend analysis and monitoring, including projections.

<Figure :9 Framework for a minimum set of care indicators >

¹⁶ In the US literature also; cost for employers: reduced productivity, higher absence of workers with additional care responsibilities.

¹⁷ For Germany, a similar approach estimated 52.12 bn Euro “production value” of informal LTC. For the US, about 30% of “total” LTC would account for similarly valued informal care if this estimate were included in total LTC spending.

¹⁸ The European Centre currently undertakes stocktaking of available data sources for Europe and of the stylised facts and figures that can be based on these (Huber, Ricardo and Hoffman 2009, forthcoming).

For the overall assessment of care needs, data are first needed on overall demographic and disability trends of older persons (trends in ADL and IADL functional limitations). This includes basic information that is needed to understand how functional limitations lead to care needs: family and other aspects of living situation, such as housing and aspects of urban (or rural) environment, accessibility to public transport, social events, and the like.

Where functional limitations have resulted in expressed care needs that are met by either formal or informal care provision (most likely by a combination of both, in cases where care is provided in a community setting), information should be collected on the main types of reasons for care demand: e.g. types of chronic disease, injuries, changes in family or housing situation. For formal care provision, an account of the number of recipients by type of services and of expenditure by sources of funding would constitute a minimum information set (Figure 9).

As a minimum, a breakdown of these data should be available that distinguishes care provided in a home (or community) based setting from care provided in institutions, where special consideration has to be given to the trend in care provision in advanced long-term care systems for which the boundaries between what can be considered a “home” versus an “institution” have become blurred and new types of facilities of protected living, retirement communities linked to care centres, and the like have become more common, but that usually are not well covered in existing information systems.

The public-private mix of funding and of care provision needs special attention for the collection of care indicators because the majority of care is in all countries still provided by informal (unpaid) carers. Moreover, information on both public and private expenditure is crucial to monitor the financial burden on households that in many cases can be substantial, in particular where access to public long-term care programmes is means tested or where substantial cost-sharing by households is required, e.g. to cover board and lodging in nursing homes.

In general, a minimum age and sex breakdown of all data elements is essential for purposes of monitoring and analysis, preferably by five-year age groups, given the steep age-gradient of many of these data.

For analytical purposes, a fair degree of consistency is required between information that comes from these different sources. In reality, this is at the moment hardly achieved in any country, although corresponding work on standardising and integrating information across sources has been put on the agenda in a few, perhaps most comprehensively in Australia.¹⁹

The various data sources for these information domains (administrative data on the care industry, living situation and informal care, data on overall expenditure and financing typically present a range of challenges of limited consistency (e.g. different boundaries of “care”) availability (e.g. lack on any data on aggregate and/or national level), and of quality (break in time series, time lags or reporting). Special household surveys on functional limitations of (older) persons that include survey modules to cover information on their family situation and on informal care would in principle

¹⁹ In form of the Australian health and social services voluntary data agreements.

have a core role in integrating different aspects of care for older persons in a more coherent picture, and these had a prominent role to support recent strategic papers or comprehensive reports on the situation of older persons in a number of countries.

These surveys have often been conducted as complementary modules to existing micro-census or special population health surveys. These surveys provide important information, in particular if they are linked to large-scale surveys such as a micro-census. Survey modules with questions on health problems of older persons and on informal care are less useful if linked to special household or general population health surveys that have small sample size (in the pro-mille rather than the percentage range).

If the design of these surveys does not systematically over-sample households in the older population, or of households with frail elderly, the sample will typically contain too few cases for the calculation of meaningful indicators for monitoring over time. The “trends” revealed over time are usually much smaller than the confidence intervals for the indicator in question. For example, this has been a problem with indicators tracing changes in Disability-free life expectancy, and the simple presentation as straight lines linking observations over time has been criticised for the same reason.

For this reason, it is doubtful that the specific questions on (informal) care obligations, and on income from care allowances and the like, that are part of the Common European Household Panel (ECHP) (now replaced by SILC) can provide data for monitoring trends or for comparing countries. It remains to be further studied to which extent the modules of the new European Health Survey System (EHSS), such as the special 5 year modules EHSM and EDM on health and disability, can provide information that will be better suited for the construction of indicators. Moreover, first results from the new European SHARE project will need further analysis to find out to which degree these can contribute to monitor trends in disability and care for older persons.

Conclusions and recommendations

There is currently no official data collection that provides “ready made” data that can be used for international comparison of long-term care spending and care giving to inform social policy. A strategy of comparing and selecting data from different existing data collections and of complementing these with estimates and corrections from national data sources and reports has been used to come up with a data set on expenditure and care giving for international comparisons. This approach has allowed to fill important data gaps and to eliminate the most obvious biases of reporting in existing data.

The analysis of expenditure data together with data on recipients and benefit levels confirms that the observed large differences in expenditure and social protection levels in long-term care (and differences in the ways these are spent on home versus institutional care) are real and not due to statistical artefacts. Long-term care systems are only emerging in a number of European countries, putting most of the burden of care on families and private initiatives in these countries. The consolidated data set also shows that countries differ in their spending trends. While public spending on long-term care has continued to increase in some countries, public policy has adopted rather strict cost-containment measures in others, raising the question of the sustainability of these measures.

Given the high policy relevance of long-term care on policy agendas for ageing populations it has now become a matter of urgency to improve data quality and availability on long-term care in international data collections. For expenditure data, a further harmonisation of methodological concepts and more cooperation in data collection between ESSPROS and the joint Eurostat-OECD-WHO data collection would be an asset, also to avoid double work in national administrations and in the research community.

For policy purposes, the comprehensive reporting on long-term care is essential, including both what has been called a “health” and a “social” component of expenditure in the OECD framework. As a minimum requirement for analytical purposes there should be a breakdown by age of recipients (working-aged disabled versus older dependent persons). The separate reporting of cash benefits would be helpful for the correct interpretation of expenditure data. The concept of care “in institutions” versus community or home care deserves more attention in the international statistical system in general. The guidance provided, for example, in the UN census manuals would need more clarification in order to use Census surveys as reliable data source for numbers of people living in institutions.

Overall, data availability on long-term care and their quality has improved during the past five years and more analysis and conclusions can now be drawn since the wave of international comparisons in 2005/2006. Better international cooperation on data concepts, building on the OECD framework, and targeted investment in research at the European level, such as under the Framework Programme for Research have contributed to this outcome.

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Tables

Table 1: Public expenditure on long-term care as share of GDP, 2005

| Countries | OECD, % GDP | | | OECD as percentage of ESSPROS | ESSPROS, %GDP | | | |
|-----------------|--------------------|--------------|-----------------|-------------------------------|---------------|------------|---------|--|
| | LTC under "health" | LTC "social" | "health+social" | | Total | Disability | Old age | Percentage of old age in total home care |
| Austria | 1.04 | .. | 1.04 | 80 | 1.30 | 0.35 | 0.96 | 73 |
| Belgium | 1.30 | .. | 1.30 | 258 | 0.50 | 0.45 | 0.05 | 10 |
| Czech Republic | 0.24 | .. | 0.24 | 48 | 0.50 | 0.17 | 0.33 | 66 |
| Denmark | 1.81 | .. | 1.81 | 67 | 2.69 | 0.96 | 1.74 | 64 |
| Finland | 0.84 | 0.94 | 1.78 | 169 | 1.05 | 0.37 | 0.68 | 65 |
| France | 1.06 | 0.44 | 1.51 | 170 | 0.89 | 0.56 | 0.32 | 37 |
| Germany | 0.93 | .. | 0.93 | 105 | 0.89 | 0.54 | 0.34 | 39 |
| Greece | .. | .. | .. | .. | 0.11 | 0.01 | 0.10 | 92 |
| Hungary | 0.26 | 0.08 | 0.34 | 65 | 0.52 | 0.14 | 0.38 | 73 |
| Ireland | .. | .. | .. | .. | 0.23 | 0.00 | 0.23 | 100 |
| Italy | .. | .. | .. | .. | 0.81 | 0.69 | 0.12 | 15 |
| Luxembourg | 1.32 | 0.05 | 1.37 | 141 | 0.98 | 0.98 | 0.00 | 0 |
| Netherlands | 1.16 | 2.20 | 3.36 | 385 | 0.87 | 0.00 | 0.87 | 100 |
| Poland | 0.37 | 0.03 | 0.40 | 88 | 0.45 | 0.13 | 0.31 | 70 |
| Portugal | 0.07 | .. | 0.07 | 22 | 0.31 | 0.05 | 0.26 | 84 |
| Slovak Republic | 0.03 | .. | 0.03 | 5 | 0.76 | 0.55 | 0.20 | 27 |
| Spain | 0.45 | 0.04 | 0.49 | 147 | 0.33 | 0.02 | 0.32 | 95 |
| Sweden | 0.64 | .. | 0.64 | 16 | 3.92 | 1.49 | 2.43 | 62 |
| United Kingdom | .. | .. | .. | .. | 2.23 | 1.18 | 1.05 | 47 |
| Bulgaria | .. | .. | .. | .. | 0.47 | 0.28 | 0.20 | 42 |
| Cyprus | .. | .. | .. | .. | 0.13 | 0.06 | 0.06 | 49 |
| Estonia | .. | .. | .. | .. | 0.79 | 0.42 | 0.37 | 47 |
| Latvia | .. | .. | .. | .. | 0.27 | 0.14 | 0.13 | 47 |
| Lithuania | .. | .. | .. | .. | 0.29 | 0.17 | 0.12 | 42 |
| Malta | .. | .. | .. | .. | 0.25 | 0.04 | 0.21 | 86 |
| Romania | .. | .. | .. | .. | 0.09 | 0.07 | 0.02 | 21 |
| Slovenia | .. | .. | .. | .. | 0.44 | 0.28 | 0.16 | 37 |
| Iceland | 1.38 | .. | 1.38 | .. | 2.15 | 0.48 | 1.67 | 78 |
| Norway | 1.96 | .. | 1.96 | .. | 1.47 | 0.37 | 1.11 | 75 |
| Switzerland | 0.93 | .. | 0.93 | .. | 0.87 | 0.58 | 0.29 | 33 |
| Canada | 1.18 | .. | 1.18 | .. | .. | .. | .. | .. |
| United States | 0.61 | .. | 0.61 | .. | .. | .. | .. | .. |

Source: own calculation based on OECD Health Data 2007 and Eurostat ESSPROS database

Table 2: Public expenditure on long-term home care as share of GDP, 2005

| Countries | OECD | OECD as percentage of ESSPROS | ESSPROS | | | | | | |
|-----------------|----------------------------|-------------------------------|---------------|------------|------|---------|------|--|---------------------------------------|
| | % GDP | | Total ESSPROS | Disability | | Old age | | Percentage of old age in total home care | Percentage of cash in total home care |
| | Home care (Incl. Day care) | | | Home help | Cash | ADL | Cash | | |
| Austria | 0.64 | 76 | 0.84 | 0.02 | 0.16 | 0.07 | 0.59 | 79 | 89 |
| Belgium | 0.39 | 279 | 0.14 | 0.03 | 0.06 | 0.04 | 0.00 | 31 | 44 |
| Czech Republic | 0.06 | 41 | 0.14 | 0.02 | 0.01 | 0.06 | 0.05 | 74 | 42 |
| Denmark | 1.80 | 91 | 1.97 | 0.36 | 0.00 | 1.62 | 0.00 | 82 | 0 |
| Finland | 0.08 | 14 | 0.54 | 0.20 | 0.07 | 0.28 | 0.00 | 51 | 13 |
| France | 0.26 | 86 | 0.30 | | 0.04 | 0.03 | 0.23 | 88 | 90 |
| Germany | 0.38 | 101 | 0.38 | 0.04 | 0.08 | 0.12 | 0.14 | 68 | 58 |
| Greece | .. | .. | 0.07 | 0.01 | 0.00 | 0.06 | 0.00 | 88 | 1 |
| Hungary | 0.01 | 8 | 0.12 | .. | 0.00 | 0.12 | 0.00 | 100 | 0 |
| Ireland | .. | .. | 0.14 | .. | 0.00 | 0.14 | 0.00 | 100 | 0 |
| Italy | .. | .. | 0.68 | 0.01 | 0.64 | 0.02 | 0.00 | 3 | 95 |
| Luxembourg | 0.43 | 44 | 0.98 | 0.98 | 0.00 | 0.00 | 0.00 | 0 | 0 |
| Netherlands | .. | .. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| Poland | 0.32 | 72 | 0.45 | | 0.13 | 0.03 | 0.29 | 70 | 94 |
| Portugal | .. | .. | 0.12 | 0.00 | 0.03 | 0.07 | 0.02 | 72 | 40 |
| Slovak Republic | 0.03 | 9 | 0.37 | | 0.34 | | 0.03 | 7 | 100 |
| Spain | 0.13 | 125 | 0.11 | 0.01 | 0.00 | 0.10 | 0.00 | 91 | 1 |
| Sweden | .. | .. | 1.62 | 0.80 | 0.13 | 0.70 | 0.00 | 43 | 8 |
| United Kingdom | .. | .. | 1.67 | 0.22 | 0.75 | 0.27 | 0.43 | 42 | 71 |
| Bulgaria | .. | .. | 0.19 | 0.03 | 0.16 | | 0.00 | 0.00 | 0.20 |
| Cyprus | .. | .. | 0.06 | | 0.06 | 0.00 | 0.00 | 0.00 | 0.74 |
| Estonia | .. | .. | 0.32 | 0.01 | 0.30 | 0.01 | 0.00 | 0.00 | 0.05 |
| Latvia | .. | .. | 0.03 | 0.01 | 0.00 | 0.02 | 0.00 | 0.74 | 0.00 |
| Lithuania | .. | .. | 0.11 | 0.00 | 0.04 | 0.01 | 0.06 | 0.09 | 0.13 |
| Malta | .. | .. | 0.04 | 0.00 | 0.00 | 0.04 | 0.00 | 1.99 | 0.10 |
| Romania | .. | .. | 0.06 | 0.04 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 |
| Slovenia | .. | .. | 0.25 | 0.00 | 0.11 | 0.00 | 0.14 | 0.20 | 0.35 |
| Iceland | .. | .. | 0.11 | 0.02 | 0.00 | 0.09 | 0.00 | 0.01 | 0.00 |
| Norway | 0.77 | 79 | 0.98 | 0.17 | 0.16 | 0.65 | 0.00 | 0.00 | 0.00 |
| Switzerland | 0.20 | 117 | 0.17 | .. | 0.08 | .. | 0.09 | 0.01 | 0.02 |
| Canada | 0.19 | .. | .. | .. | .. | .. | .. | .. | .. |
| United States | .. | .. | .. | .. | .. | .. | .. | .. | .. |

Source: own calculation based on OECD Health Data 2007 and Eurostat ESSPROS database

Table 3: *Public expenditure on long-term care in institutions as share of GDP, 2005*

| Countries | OECD | OECD as percentage of ESSPROS | ESSPROS, %GDP | | | Percentage of old age in total accommodation |
|-----------------|-----------------------|----------------------------------|------------------------------|---------------------------|------------------------|---|
| | Inpatient LTC %GDP | | Disability: accommodation | Old age: accommodation | Total accommodation | |
| Austria | 0.40 | 86 | 0.17 | 0.29 | 0.46 | 63 |
| Belgium | 0.91 | 250 | 0.36 | 0.01 | 0.36 | 2 |
| Czech Republic | 0.18 | 50 | 0.14 | 0.23 | 0.36 | 63 |
| Denmark | 0.00 | 1 | 0.60 | 0.12 | 0.72 | 17 |
| Finland | 0.76 | 150 | 0.10 | 0.40 | 0.51 | 79 |
| France | 0.81 | 137 | 0.53 | 0.06 | 0.59 | 10 |
| Germany | 0.55 | 107 | 0.42 | 0.09 | 0.51 | 17 |
| Greece | .. | .. | 0.00 | 0.03 | 0.03 | 100 |
| Hungary | 0.25 | 62 | 0.14 | 0.26 | 0.40 | 65 |
| Ireland | .. | .. | 0.00 | 0.08 | 0.08 | 100 |
| Italy | .. | .. | 0.04 | 0.10 | 0.13 | 73 |
| Luxembourg | 0.89 | .. | 0.00 | 0.00 | 0.00 | .. |
| Netherlands | .. | .. | 0.00 | 0.87 | 0.87 | 100 |
| Poland | 0.05 | .. | 0.00 | 0.00 | 0.00 | .. |
| Portugal | .. | .. | 0.02 | 0.18 | 0.19 | 91 |
| Slovak Republic | 0.00 | .. | 0.21 | 0.18 | 0.39 | 46 |
| Spain | 0.31 | 140 | 0.01 | 0.22 | 0.22 | 97 |
| Sweden | .. | .. | 0.57 | 1.73 | 2.30 | 75 |
| United Kingdom | .. | .. | 0.21 | 0.35 | 0.56 | 63 |
| Bulgaria | .. | .. | 0.08 | 0.04 | 0.12 | 29 |
| Cyprus | .. | .. | 0.00 | 0.00 | 0.00 | 20 |
| Estonia | .. | .. | 0.11 | 0.07 | 0.18 | 40 |
| Latvia | .. | .. | 0.14 | 0.13 | 0.26 | 48 |
| Lithuania | .. | .. | 0.13 | 0.08 | 0.20 | 38 |
| Malta | .. | .. | 0.03 | 0.21 | 0.24 | 86 |
| Romania | .. | .. | 0.02 | 0.01 | 0.02 | 26 |
| Slovenia | .. | .. | 0.16 | 0.05 | 0.21 | 23 |
| Iceland | 1.38 | 65 | 0.46 | 1.67 | 2.13 | 79 |
| Norway | 1.18 | 120 | 0.04 | 0.95 | 0.99 | 96 |
| Switzerland | 0.73 | 103 | 0.50 | 0.21 | 0.71 | 29 |
| Canada | 0.99 | .. | .. | .. | .. | .. |
| United States | 0.61 | .. | .. | .. | .. | .. |

Source: own calculation based on OECD Health Data 2007 and Eurostat ESSPROS database

Table 4: Structure of public expenditure on long-term care

| | Latest year available | Source(1) | Public expenditure | Home care | Institutions | Care allowances |
|-------------|-----------------------|-----------|--------------------|-------------------|-------------------|-------------------|
| | | | % of GDP | % of LTC spending | % of LTC spending | % of LTC spending |
| Austria | 2004 | Own est. | 1.3 | 57 | 43 | 57 |
| Belgium | 2006 | OECD | 1.5 | 28 | 72 | 0 |
| Denmark | 2005 | ESSPROS | 2.7 | 73 | 27 | 0 |
| Estonia | 2005 | ESSPROS | 0.5 | 5 | 36 | 60 |
| Finland | 2005 | ESSPROS | 1.0 | 45 | 48 | 7 |
| France | 2003 | Own est. | 0.9 | 43 | 57 | 0 |
| Germany | 2006 | OECD | 0.9 | 18 | 58 | 24 |
| Ireland | 2005 | Own est. | 0.6 | 40 | 60 | 1 |
| Italy | 2006 | Own est. | 1.7 | 32 | 26 | 42 |
| Lithuania | 2005 | ESSPROS | 0.3 | 5 | 64 | 32 |
| Luxembourg | 2006 | OECD | 1.3 | 33 | 67 | 0 |
| Poland | 2004 | Own est. | 0.3 | 35 | 54 | 4 |
| Slovenia | 2005 | ESSPROS | 0.5 | 0 | 46 | 54 |
| Spain | 2004 | Own est. | 0.3 | 27 | 59 | 14 |
| Sweden | 2005 | Own est. | 3.9 | 38 | 59 | 3 |
| UK | 2005 | ESSPROS | 1.9 | .. | .. | .. |
| Iceland | 2005 | ESSPROS | 2.2 | 5 | 95 | 0 |
| Norway | 2007 | OECD | 2.3 | 42 | 50 | 8 |
| Switzerland | 2005 | OECD | 0.9 | 0 | 80 | 20 |
| Israel | 2005 | Own est. | 0.5 | | | |
| Canada | 2007 | OECD | 1.3 | 17 | 83 | 0 |
| USA | 2006 | Own est. | 0.9 | 34 | 66 | 0 |

Note: (1) Own est.: refers to own estimates based on national sources

Figures for Poland don't sum to 100% as part of public expenditure could not be attributed to either home nor institutionalised care.

Source: own calculation based on OECD Health Data 2007; Eurostat ESSPROS database and national sources

Table 5: *Public and private expenditure on long-term care, 2005*

| | Latest year available | Total expenditure | Public expenditure | Private expenditure |
|-------------|-----------------------|-------------------|--------------------|---------------------|
| | | % of GDP | % of GDP | % of GDP |
| Austria | 2004 | 1.5% | 1.3% | 0.2% |
| Belgium | 2006 | 1.6% | 1.5% | 0.2% |
| Denmark | 2006 | 2.9% | 2.7% | 0.2% |
| Finland | 2006 | 1.3% | 1.0% | 0.3% |
| Germany | 2006 | 1.4% | 0.9% | 0.5% |
| Spain | 2004 | 0.5% | 0.3% | 0.2% |
| Norway | 2007 | 2.5% | 2.3% | 0.3% |
| Switzerland | 2005 | 2.3% | 0.9% | 1.4% |
| Canada | 2007 | 1.5% | 1.3% | 0.3% |
| USA | 2006 | 1.4% | 0.9% | 0.5% |

Source: see Table 4; additional private expenditure from OECD Health Data 2007

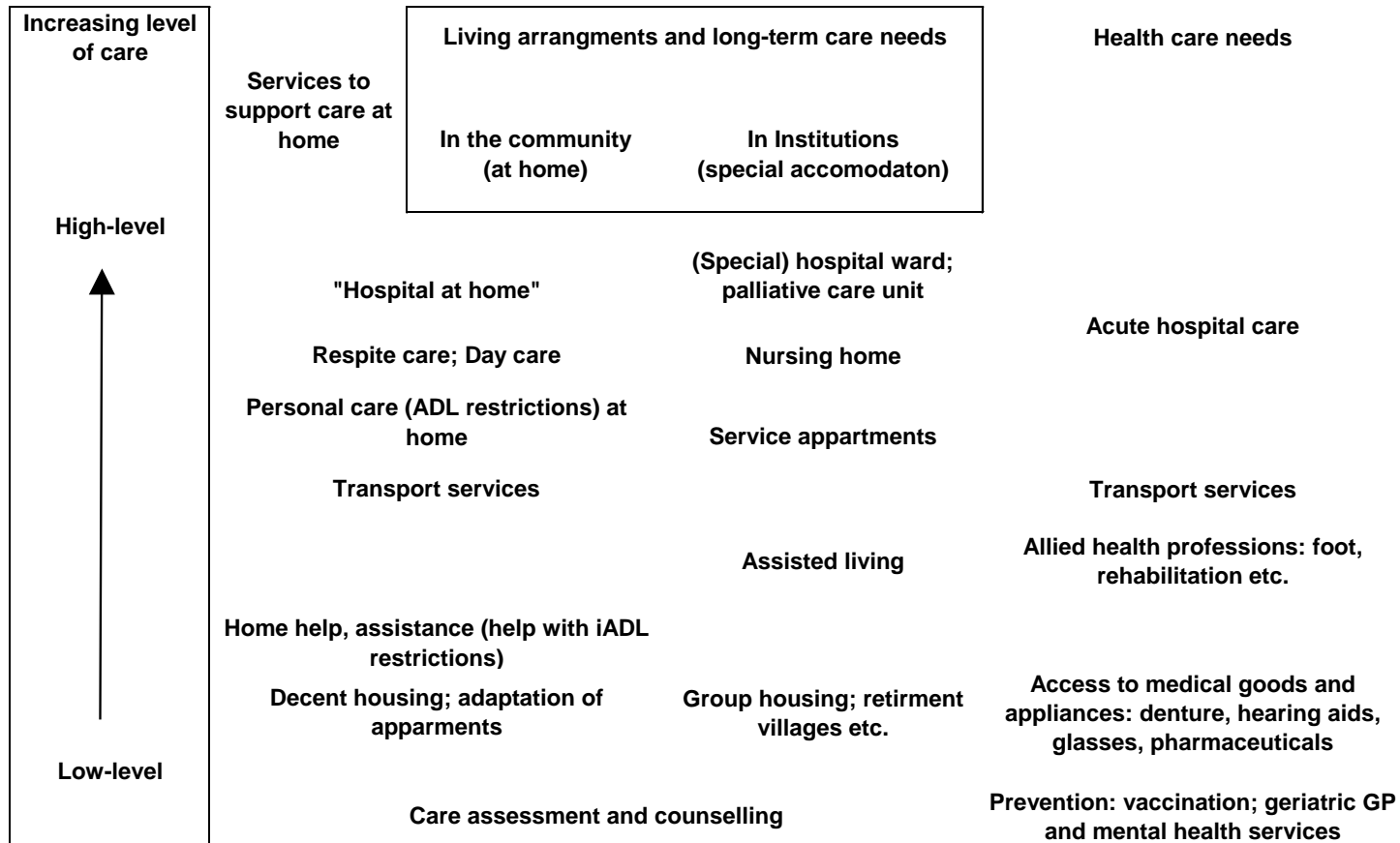
Table 6: *Estimated expenditure on long-term care and projections until 2050*

| Country | ECFIN reference scenario | | | OECD 2050 projection | | | | |
|-------------|--------------------------|------|--------------------|----------------------|---------------|--------------------|------------------|--------------------|
| | 2005 | 2050 | Change (2004-2050) | 2005 | Cost-pressure | Change (2004-2050) | Cost-containment | Change (2004-2050) |
| Austria | 0.6 | 1.5 | 0.9 | 1.3 | 3.3 | 2 | 2.5 | 1.2 |
| Belgium | 0.9 | 1.8 | 1 | 1.5 | 3.4 | 1.9 | 2.6 | 1.1 |
| Denmark | 1.1 | 2.2 | 1.1 | 2.6 | 4.1 | 1.5 | 3.3 | 0.7 |
| Finland | 1.7 | 3.5 | 1.8 | 2.9 | 5.2 | 2.3 | 4.2 | 1.3 |
| France | .. | .. | .. | 1.1 | 2.8 | 1.7 | 2 | 0.9 |
| Germany | 1 | 2 | 1 | 1 | 2.9 | 1.9 | 2.2 | 1.2 |
| Greece | .. | .. | .. | 0.2 | 2.8 | 2.6 | 2 | 1.8 |
| Ireland | 0.6 | 1.2 | 0.6 | 0.7 | 4.6 | 3.9 | 3.2 | 2.5 |
| Italy | 1.5 | 2.2 | 0.7 | 0.6 | 3.5 | 2.9 | 2.8 | 2.2 |
| Luxembourg | 0.9 | 1.5 | 0.6 | 0.7 | 3.8 | 3.1 | 2.6 | 1.9 |
| Netherlands | 0.5 | 1.1 | 0.6 | 1.7 | 3.7 | 2 | 2.9 | 1.2 |
| Portugal | .. | .. | .. | 0.2 | 2.2 | 2 | 1.3 | 1.1 |
| Spain | 0.5 | 0.8 | 0.2 | 0.2 | 2.6 | 2.4 | 1.9 | 1.7 |
| Sweden | 3.8 | 5.5 | 1.7 | 3.3 | 4.3 | 1 | 3.4 | 0.1 |
| UK | 1 | 1.8 | 0.8 | 1.1 | 3 | 1.9 | 2.1 | 1 |
| EU15 | 0.9 | 1.5 | 0.7 | 1.3 | 3.5 | 2.2 | 2.6 | 1.3 |
| Cyprus | .. | .. | .. | .. | .. | .. | .. | .. |
| Czech Rep. | 0.3 | 0.7 | 0.4 | 0.4 | 2 | 1.6 | 1.3 | 0.9 |
| Estonia | .. | .. | .. | .. | .. | .. | .. | .. |
| Hungary | .. | .. | .. | 0.3 | 2.4 | 2.1 | 1 | 0.7 |
| Lthuania | 0.5 | 0.9 | 0.4 | .. | .. | .. | .. | .. |
| Latvia | 0.4 | 0.7 | 0.3 | .. | .. | .. | .. | .. |
| Malta | 0.9 | 1.1 | 0.2 | .. | .. | .. | .. | .. |
| Poland | 0.1 | 0.2 | 0.1 | 0.5 | 3.7 | 3.2 | 1.8 | 1.3 |
| Slovakia | 0.8 | 1.3 | 0.6 | 0.3 | 2.6 | 2.3 | 1.5 | 1.2 |
| Slovenia | 1 | 2.2 | 1.2 | .. | .. | .. | .. | .. |
| EU25 | 0.9 | 1.5 | 0.6 | .. | .. | .. | .. | .. |

Source: *European Commission and ECFIN 2006, and OECD 2006*

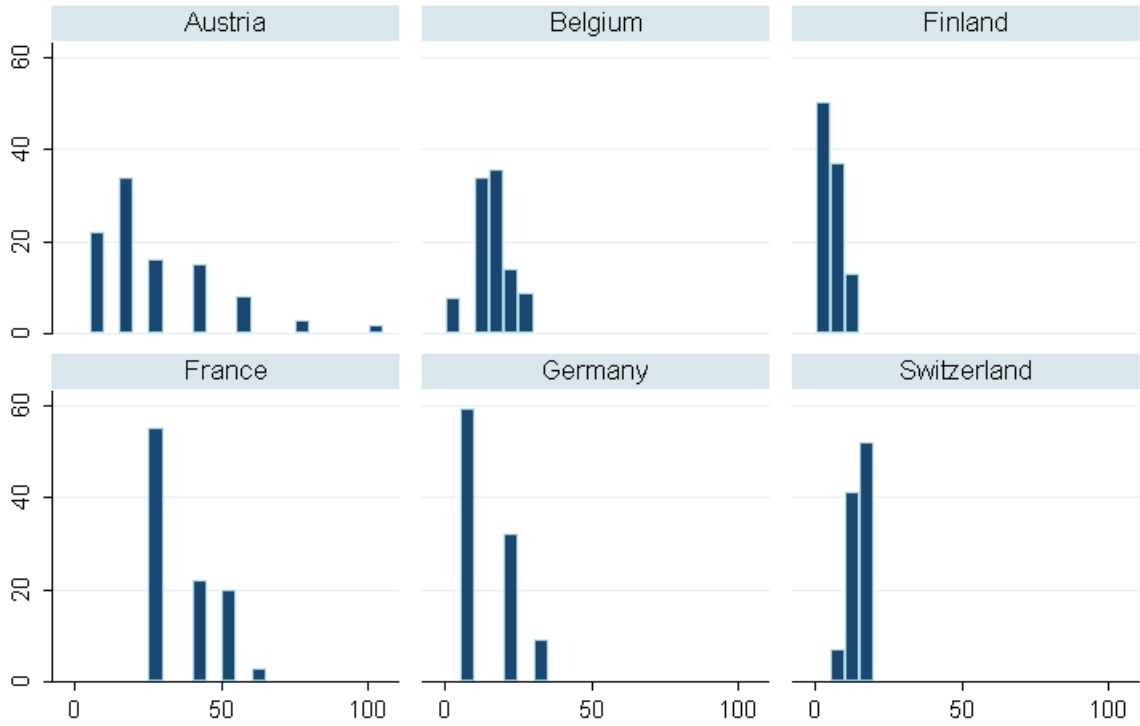
Figures

Figure 1: Long-term care: a complex array of services



Source:

Figure 2: Countries differ in the way cash benefits are targeted, 2005
 (Percentage of recipients per care level)

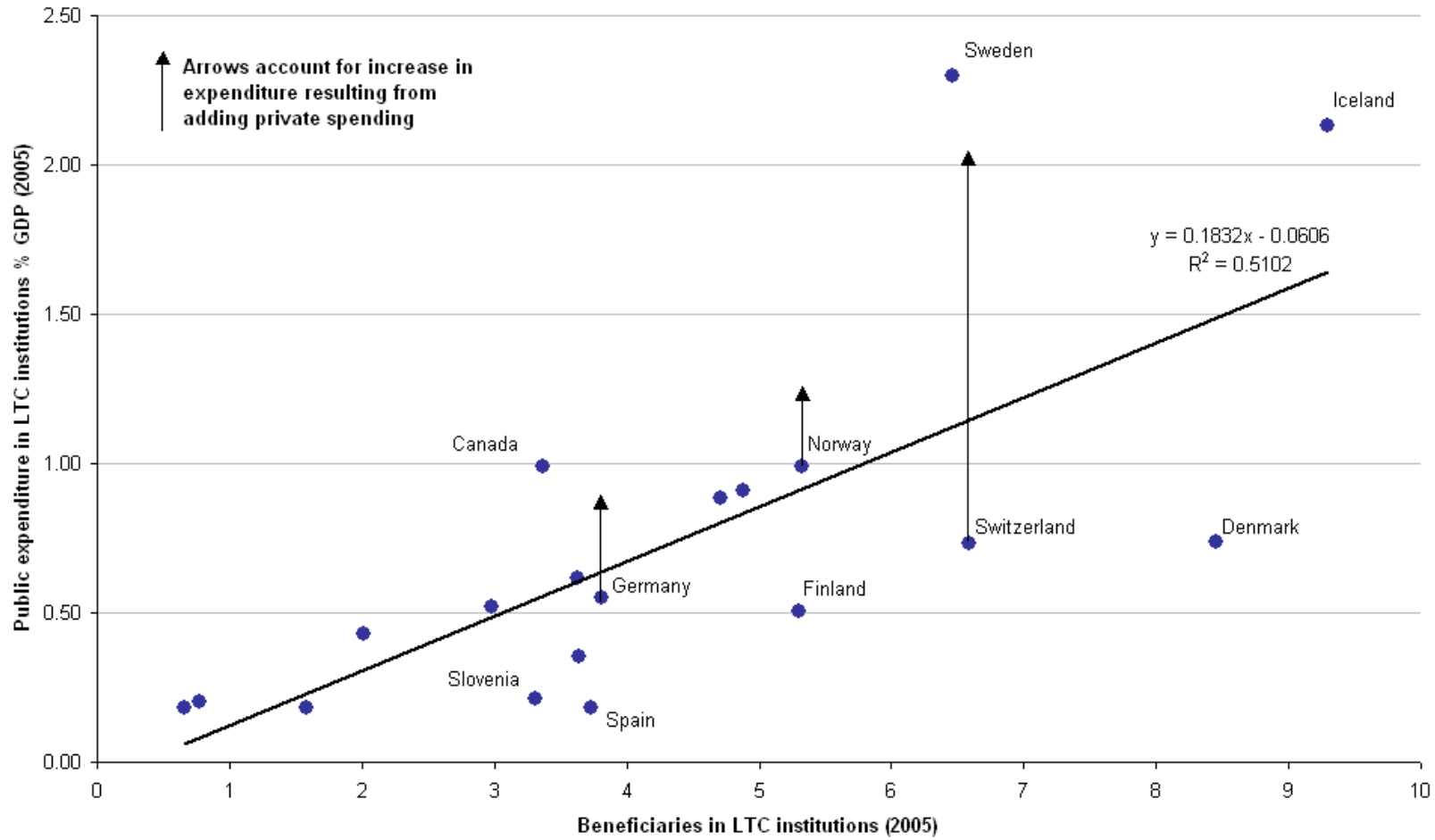


Benefits levels in percentage of income of OECD average production worker

Source: own calculations based on national sources

OECD (2008a)

Figure 3: Numbers of recipients explain only part of differences in public long-term care spending in institutions



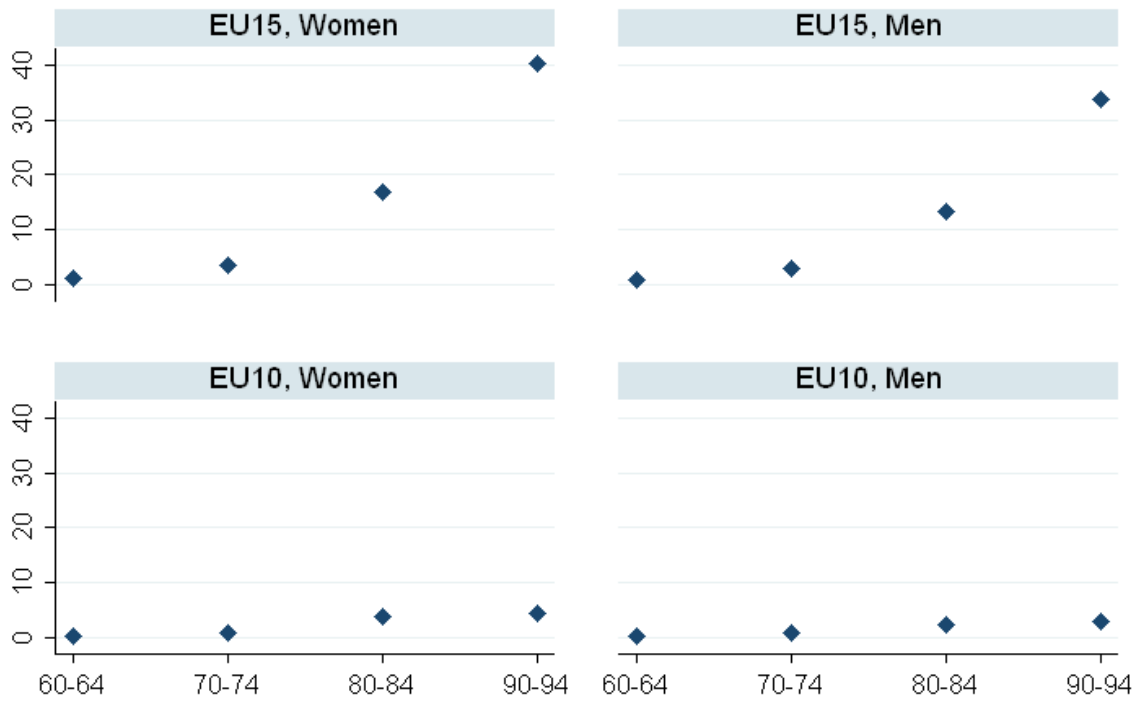
Source: own calculations

Figure 4: Trends in public expenditure on long-term care, as share of GDP, 1990 to 2005



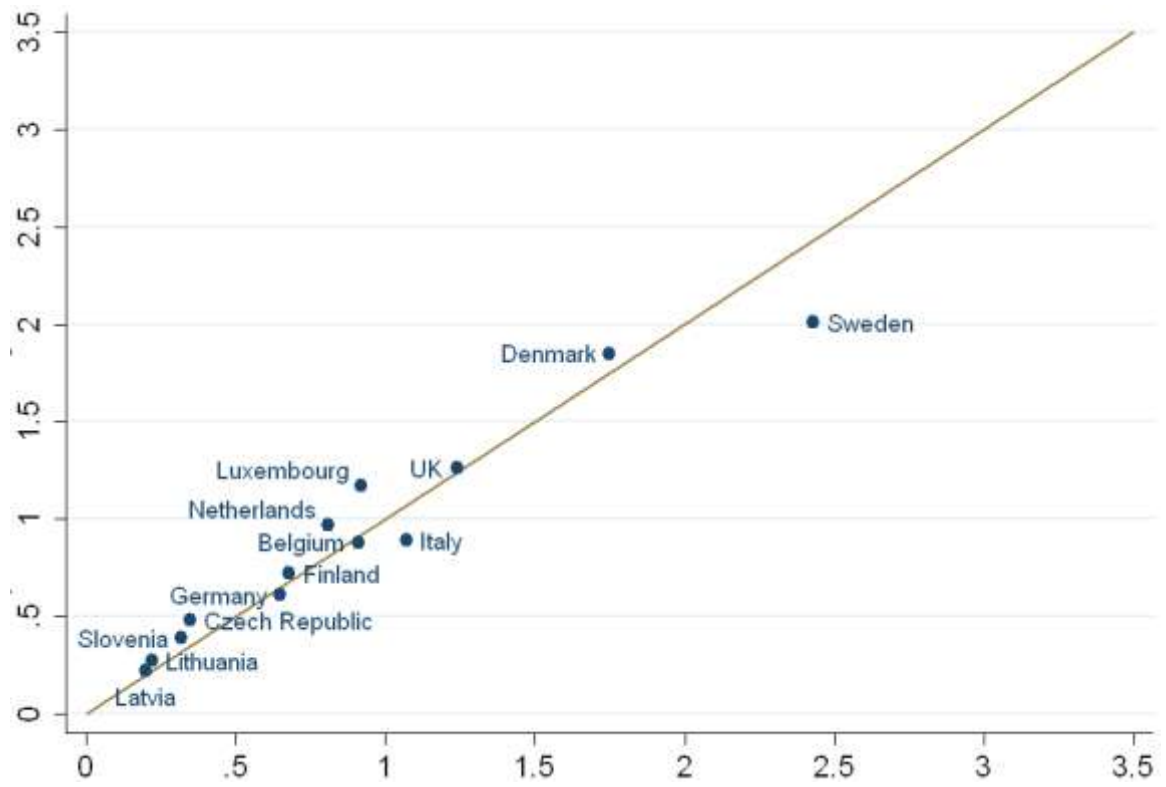
Source: own calculations

Figure 5: Age-related expenditure profiles for long-term care, EU15 and EU10, around 2004



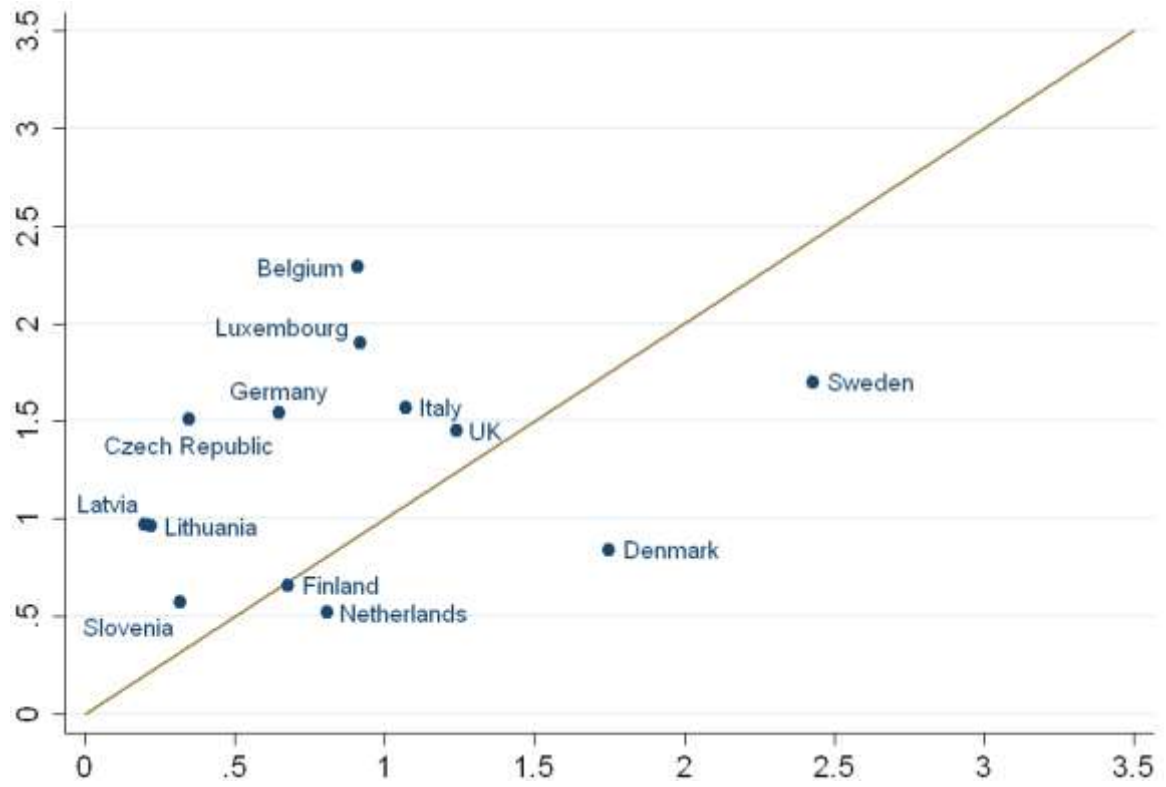
Source: European Commission and ECFIN 2006

Figure 6: Age standardised public expenditure levels on long-term care, 2005



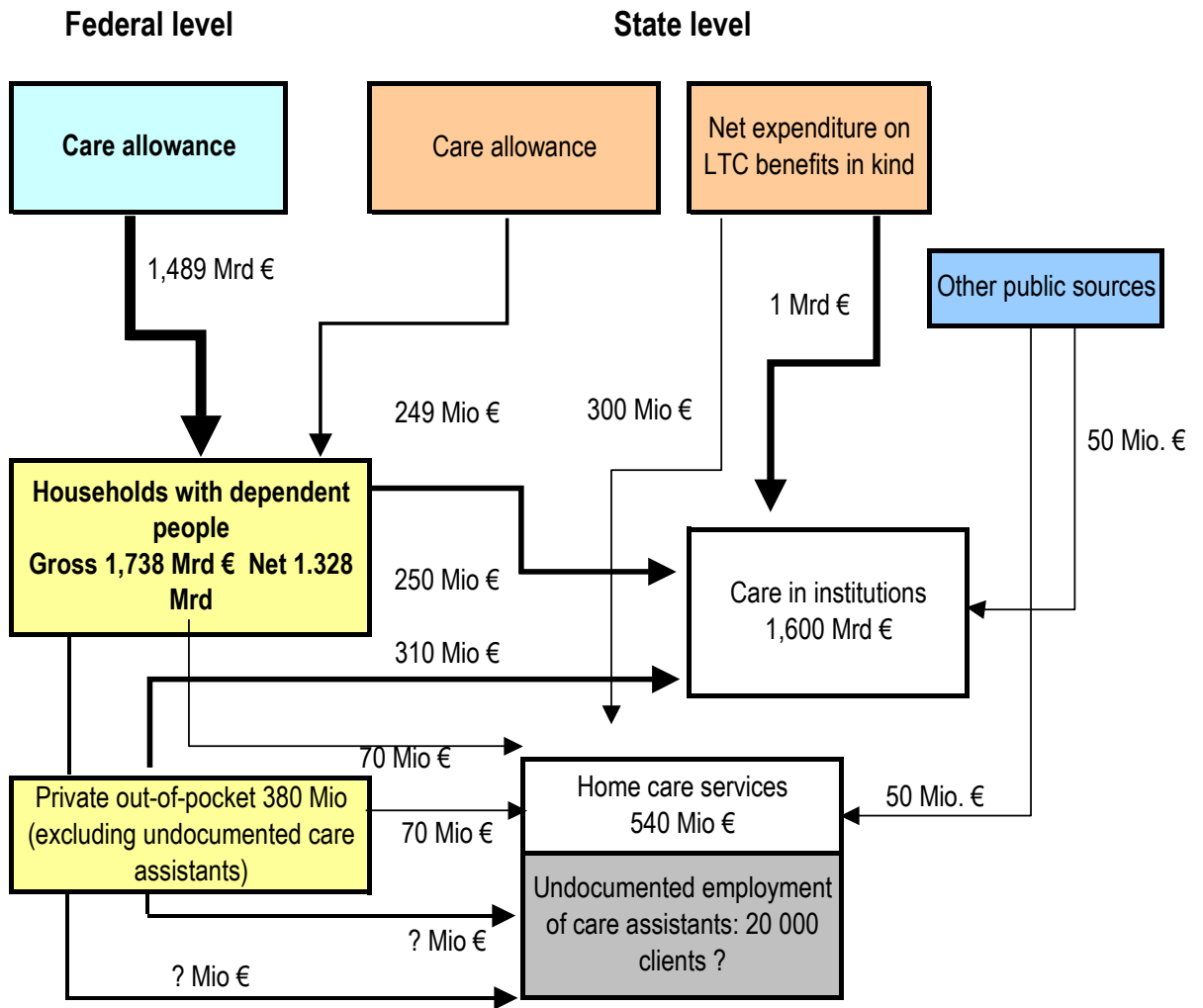
Source: own calculations

Figure 7: “Spending up to the EU15 level” would result in large increases of public LTC spending in Europe



Source: own calculations

Figure 8: Flows of long-term care financing in Austria, 2004



Source: own calculations

Figure 9: Framework for a minimum set of care indicators

| | | Public programmes | | Private provision | | | Demographic & epidemiological data: e.g prevalence of dementia |
|----------------------|-------------|-------------------|-------------|-------------------|-------------|---------------|--|
| | | Epen-diture | Reци-pients | Epen-diture | Reци-pients | Informal care | |
| Home care | Age and sex | | | | | | |
| Care in institutions | Age and sex | | | | | | |