

# Projections of Future Expenditure on Long-term Care for Older People

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How best to finance the long-term care of older people is the subject of considerable national debate in the UK, as in a number of other countries. The Report of the UK Royal Commission on Long Term Care in 1999, followed by the introduction of free personal care in Scotland in July 2002, has led to continuing pressure for further reform of the financing system in the rest of the UK. The essence of the debate on long-term care is about how far people should fund their own care and how far they should be publicly funded. Underlying the debate are concerns about the future affordability of long-term care.

## 1. The PSSRU Long-term Care Financing Study

The Personal Social Services Research Unit (PSSRU) at the London School of Economics has conducted a study, funded by the Department of Health, on the financing of long-term care for older people. The study is concerned with two related policy issues on the funding of long-term care for older people. The first is whether expenditure, and specifically public expenditure, on long-term care will remain sustainable over the coming decades, despite demographic pressures and potentially rising expectations. The second is what should be the balance between public and private expenditure on long-term care.

The aim of the project is to produce projections to 2031 of three key variables. They are the numbers of dependent older people likely to require long-term care, the long-term care health and social services that will be required to meet demand, and public and private expenditure on those services.

PSSRU has developed a macro-simulation (or cell-based) model to make projections of demand for long-term care by older people and associated expenditure,

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under clearly specified assumptions (WITTENBERG *et al.* 1998, 2001; COMAS-HERRERA 2003). The model produces three kinds of projections: the numbers of dependent older people likely to require long-term care, the long-term care health and social services that will be required to meet demand, and the public and private expenditure on those services.

The project has contributed projections and analyses for the Royal Commission on Long Term Care, the UK Treasury's Health Trends Review, the UK input to an EU study on ageing, the UK input to an OECD study of long-term care, an Institute of Public Policy Research study and the European Commission.

## 2. The Projections Model

The model has three main parts. The first one splits the projected older population into cells according to their characteristics. The second part of the model attaches a probability of receiving long-term care services to each cell, and the third part of the model calculates future expenditure.

The first part of the model splits the older population according to a number of characteristics relevant to the use of services, such as the level of dependency (measured in terms of activities of daily living), marital status, whether living alone, with a partner or children, housing tenure, and receipt of informal care (by spouses, children or others). Recent work on the model has involved substantial changes in both the treatment of dependency and receipt of informal care.

Dependency is a crucial driver of demand for long-term care. The section on dependency in the projections model has recently been updated and expanded, using data from the 2001/2 General Household Survey (GHS). It now includes six categories of dependency, ranging from no dependency to inability to perform two or more activities of daily living (ADL) without help.

There are currently nearly two-and-a-third million dependent older people in England. Of these, approximately two million live in their own homes and around 350,000 in residential care homes, nursing homes or long-stay hospitals. Almost 600,000 of those in their own homes are unable to perform at least one ADL without help. 18% of men and 21% of women aged 85 and over in their own homes fall into this category.

Receipt of informal care is an important factor affecting need for long-term care services by older people (PICKARD *et al.* 2000). It is important to distinguish between informal care by spouses and by children: whereas care by spouses is likely to increase in future years, care by children may decrease. A reduction in the supply of care by children may arise from such factors as the continuing

expansion of women's employment, decline in co-residence of older people with their children and (beyond 2025) rising numbers of childless older people.

Analyses of the 2001/2 General Household Survey (GHS) show that approximately 85% of dependent older people currently receive some informal help. Of those who receive informal help, over 80% do so from either their children or their spouses, with approximately equal numbers receiving help from each source of care. Nearly 90% of the dependent older people who receive informal care from their children are single (widowed, divorced, separated or never married).

The second part of the model projects the volumes of services demanded by combining the output of the first part of the model (the projected numbers of older people by dependency, household type/informal care and other characteristics) with functions that assign receipt of services to each sub-group of the older population. The services covered include a range of social, health and private formal services relevant to meeting long-term care needs.

The probability of receipt of each non residential service was estimated through multivariate (logistic regression) analysis of the 2001/2 GHS data. The independent variables were age, gender, dependency, household type/informal care and housing tenure. The fitted values from the regression analyses are used in the model. The probabilities of receiving residential, nursing home and long-stay hospital care by age band, gender and household type were estimated using Department of Health statistics on the numbers in institutional care and data from PSSRU surveys of residential care on the gender, age, previous household type and housing tenure of residents.

A third part of the model projects total expenditure on the formal services demanded, applying unit costs of formal care to the volume of services projected in the second part of the model. The model then breaks down projected aggregate expenditure by source of funding: health services, social services and service users. The costs of the health services included are assigned to the National Health Service (NHS). The costs of the social services are divided between local authority personal social services and service users, since receipt of publicly funded social services in England is subject to a means test.

Work is in progress to prepare a new module that will calculate the implications of the volume of services projected in terms of the future numbers of staff required, for different types of staff qualifications.

### 3. Key Projections

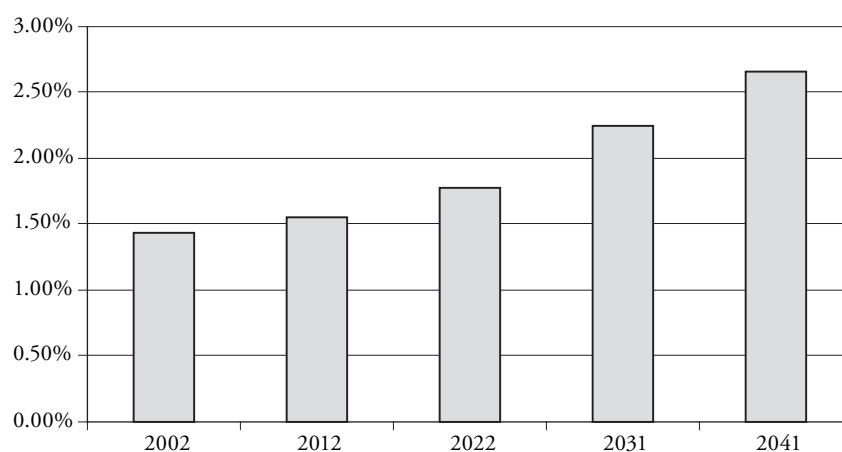
The model produces projections on the basis of specific assumptions about future trends. A set of base case projections take account of expected changes in factors exogenous to long-term care policy, such as demographic trends. The base case projections hold constant factors endogenous to long-term care policy, such as patterns of care and the funding system. The base case is used as a point of comparison when the assumptions of the model are subsequently varied in scenarios.

The model projects that the number of dependent older people is likely to increase by nearly 70% between 2002 and 2031, if age-specific dependency rates remain constant. This is on the basis of the latest official population projections, which show the total older population rising by over 60% during this period.

Care by spouses is likely to increase significantly in future years, in view of the official marital status projections. Over the next thirty years, spouse care is likely to become a more important source of informal care for dependent older people than care by their children. Yet care by children will still need to increase by nearly 60% in the next thirty years, if the proportion of older people (by age and marital status) receiving care from their children is to remain the same as it is today.

Demand for long-term care services is projected to increase markedly, even if informal care rises in line with demand. The model projects that, to keep pace with demographic pressures over the next thirty years, residential care would need to expand by around 75% and home care by around 70%. The model also projects that long-term care expenditure would need roughly to treble in real terms over the next thirty years to meet demographic pressures and to allow for likely real rises in care costs.

If the real unit costs of care rise by around 2% per year and GDP rises in line with official projections, the proportion of GDP required for long-term care for older people is projected to rise from around 1.45% in 2002 to around 2.25% in 2031 and 2.65% in 2041 (figure 1). It is important to stress that these projections, which take no account of changes in patterns of care or changing expectations, are sensitive to assumptions about future trends in mortality, disability rates and real rises in unit costs. If disability rates fall, the resources required in 2031 could be significantly lower; but if the costs of care rise faster than 2% per year the resources required in 2031 could be significantly higher than 2.25% of GDP.

**Figure 1: Projected Long-term Care Expenditure as Percentage of GDP, 2002 to 2041**

## References

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