

Projected expenditure to 2022 on social care and
continuing health care for England's older population

Care for older people

Research summary

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About this work programme

This report is part of the first phase of a research programme called **Buying Time: What is the scale of the financial challenge facing the NHS and how can it be met?**. The Buying Time programme is examining how the NHS and social care system in England can meet the key challenge of improving patient care within a severely constrained budget. It brings together research and evidence on the efficiency and effectiveness of health and social care to answer these key questions:

- What is the scale of the financial challenge facing the NHS and social care system over the next ten years?
- Can the NHS in England meet the challenge by delivering more efficient and effective health and social care systems?

The programme is empirically based and consists of two phases:

- Phase 1 (2011 to 2012): Assessing the scale of the financial challenge
- Phase 2 (2013 to 2014): Rising to the challenge: the scope for productivity gains.

The findings in this report are drawn upon in a Nuffield Trust report, *A Decade of Austerity: The funding pressures facing the NHS from 2010/11 to 2021/22*, which discusses the implications of these projections for policy development.

Find out more at: www.nuffieldtrust.org.uk/nhs-financial-challenge

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Social care is crucial to the welfare of many older people. Some 80% will need care in the later years of their lives (Department of Health, 2012). Meeting the need for social care is set to be more challenging in the decades to come, as the number of older people continues to rise and public expenditure continues to be constrained (Crawford and Emmerson, 2012). This report sets out projections of public expenditure on social care and continuing health care for people aged 65 or over in England from 2010 to 2022. The study was conducted by the Personal Social Services Research Unit (PSSRU) at the London School of Economics and Political Science, and was commissioned by the Nuffield Trust.

Key points

- The number of older people with moderate or severe disabilities is projected to increase by 32%, and public expenditure on social care and continuing health care for older people to rise to £12.7 billion in real terms by 2022 (an increase of 37% from £9.3 billion in 2010), to keep pace with expected demographic and unit cost pressures.
- Projected future expenditure on social care and continuing health care will vary with future life expectancy. Under the ONS low life expectancy population projection, the number of older people with moderate or severe disabilities is projected to rise by 30%, with public expenditure on social care and continuing health care rising by 35% in real terms between 2010 and 2022. Under their high life expectancy projection, the number of older people with moderate or severe disabilities would rise by 34%, with expenditure rising by 40%.
- In addition, if rates of chronic disease continue to rise in line with recent trends, the number of older people with moderate or severe disabilities is projected to increase by 54%, and public expenditure on social care and continuing health care to increase by 56% between 2010 and 2022, to £14.4 billion in real terms.
- These projections would be largely unchanged if the balance of care shifted such that publicly-funded residential care was replaced by an average of around 20 hours per week of home care. However, a shift in the balance of care from informal to formal care could significantly increase projected future public expenditure on social care for older people.
- Implementation of a cap on the amount that any individual pays towards their lifetime care costs, on the lines recommended by the Dilnot Commission, would incur additional costs in social care provision, with social care expenditure being some 25% (around £2.5 billion) higher in 2022 than if the current means-tested system continued.



Introduction

Social care is crucial to the welfare of many older people. Some 800,000 people aged 65 and over in England receive publicly-funded care, and another 300,000 or more purchase care privately. From a lifetime perspective, some 80% of older people will need care in the later years of their lives (Department of Health, 2012). Meeting the need for social care is set to be more challenging in the decades to come, as the number of older people continues to rise and public expenditure continues to be constrained (Crawford and Emmerson, 2012).

There has been an extended debate over at least the last 15 years on how best to finance social care. In 1999 the Royal Commission on Long Term Care for Older People recommended that nursing care and personal care should be free at point of use (Royal Commission on Long Term Care, 1999). Free personal care for older people was implemented in Scotland, but in the rest of the UK only free nursing care was introduced. A major review set up by the King's Fund advocated a form of partnership between individuals and the state (Wanless and others, 2006). The previous Labour Government announced in its White Paper that it planned to introduce a National Care Service, under which social care would ultimately be free at point of use (HM Government, 2010).

The current Coalition Government established a Commission on Funding of Care and Support, which reported in July 2011. Its main recommendation was for a lifetime cap on the amount that any individual pays towards their lifetime care costs (Dilnot and others, 2011). The government published a progress report in July 2012, in which it accepted the principle of a cap on the lines recommended by the Commission, but deferred a final decision on implementation to the next spending review.

The Personal Social Services Research Unit (PSSRU) at the London School of Economics and Political Science has developed models to make projections of future demand for social care for older people and associated expenditure. The aim is to provide information to help policy-makers design policies for financing social care and support. The PSSRU models have been used previously to make projections for a wide range of reviews of the financing of long-term care, from the Royal Commission on Long Term Care for Older People in 1999, to the Commission on Funding of Care and Support in 2011.

This research summary sets out projections of public expenditure on social care and continuing health care for people aged 65 or over in England from 2010 to 2022. Conducted by the PSSRU and commissioned by the Nuffield Trust, it concentrates on social care for older people, a user group that accounts for over half of total public expenditure on adult social care.

Methods

The PSSRU long-term care projections model projects:

- the future number of older people with disabilities
- the likely level of demand for long-term care services and disability benefits for older people
- the costs associated with meeting this demand
- the social care workforce required.

These four variables are likely to be of particular importance to decision-makers formulating policy on the financing and delivery of social care for older people.

The model is concerned with demand for care and not directly with supply. It provides evidence on the increase in social care resources required to meet rising demand. If a constraint on resources was assumed at the outset, it would not provide evidence on the level of increase in resources required to meet demand. The implicit assumption underlying the model's projections is that demand will be no more constrained by resources in the future than in 2010.

The model does not make forecasts about the future; it makes projections on the basis of specific assumptions about trends in variables such as future mortality rates and disability rates. The approach involves simulating the impact on demand for care and support of specified changes in demand drivers or specified changes in policy. It does not involve forecasting future policies or future patterns of care. The projections reported here should therefore be treated as indications of likely future expenditure on care and support if policies are unchanged and drivers of demand follow the specified trends. In practice, not only may drivers of demand not follow the assumptions, but policies are likely to change. Since the purpose of the projections is to inform policy development, it would not be helpful to take account of views about possible policy changes.

Over the years, the model has been substantially improved and expanded.¹ The main improvement for the study reported here is the addition to the model of NHS expenditure on continuing health care. This is a valuable addition, covering around £2 billion of expenditure that would otherwise have been excluded from the study. The projections for NHS continuing health care, however, need to be treated with caution, since the available data on such care are very limited.

The model is updated regularly as new data become available, in particular:

- population projections
- data on the number of older people in care homes and the number of users of home care services
- data on social care expenditure
- estimates of the unit costs of care.

The version of the model that has been used to make the projections in this report utilises official 2010-based population projections from the Office for National Statistics (ONS; Office for National Statistics, 2011); 2008-based marital status projections; data from the 2001/02 General Household Survey; the 2005 PSSRU survey of older care home admissions; March 2010 data on residential care and home-based care; and expenditure data for 2010/11 and unit costs adjusted to 2010/11 prices.

Findings

The PSSRU model produces projections on the basis of specific assumptions about future trends in the key drivers of demand for long-term care. The main assumptions used in the base case of the model are summarised in Box 1 on the next page. The base

¹ The data and methods are discussed further in Wittenberg and others (2006), and in Wittenberg and others (2011) which sets out projections prepared for the Commission on Funding of Care and Support.

case projections take account of expected changes in factors not directly affected by policy developments, such as demographic trends, but hold factors related to long-term care policy, such as patterns of care and the funding system, constant. The base case is used as a point of comparison when the assumptions of the model are subsequently varied in alternative scenarios.

There is ample scope to debate these base case assumptions. It could be argued, for example, that mortality rates will fall more rapidly than official projections; disability rates may rise (or fall); the supply of informal care by adult children may not rise in line with needs; the supply of residential care may not rise in line with severe disability; and/or average earnings in the care sector may not rise by as much as 2% per year in real terms from 2015. We have conducted a wide range of sensitivity analyses on these issues in previous studies (Wittenberg and others, 2006) and further sensitivity analyses were conducted as part of this study.

Box 1. Key longitudinal assumptions of the base case of the PSSRU model

- The number of people by age and gender changes in line with the ONS 2010-based population projections.
- Marital status changes in line with Government Actuary's Department 2008-based marital status and cohabitation projections.
- For single people, the ratio of those living alone to those living with their children or with others remains constant.
- For married people, the ratio of those living with a partner only to those living with a partner and others remains constant.
- Prevalence rates of disability by age group (65–69, 70–74, 75–79, 80–84 and 85+) and gender remain unchanged, as reported in the 2001/02 General Household Survey for Great Britain.
- Home-ownership rates, as reported in the 2001/02 Family Resources Survey, change in line with projections produced by the University of East Anglia.
- The proportions of older people receiving informal care, formal community care services, residential care services and disability benefits remain constant for each sub-group by age, disability and other needs-related characteristics.
- Health and social care unit costs remain constant in real terms to 2015 and then rise by 2% per year in real terms (but non-labour, non-capital costs remain constant in real terms).
- Real Gross Domestic Product (GDP) rises in line with Office for Budget Responsibility (OBR) projections (Office for Budget Responsibility, 2011).
- The supply of formal care will adjust to match demand and demand will be no more constrained by supply in the future than in the base year.

The ONS 2010-based principal population projections for England project that between 2010 and 2022, the number of people aged 65 or over will rise by 27%. The number of those aged 85 or over is projected to rise faster during this period; by 44%, from almost 1.2 million in 2010 to just over 1.7 million in 2022. Much of this increase is a result of a projected rise in male life expectancy.

Under the base case assumptions, the number of disabled older people (defined as those unable to perform at least one instrumental activity of daily living (IADL) or having problems with at least one activity of daily living (ADL)) would rise by 31% between 2010 and 2022, from around 2.6 million to around 3.4 million. The number

of older people with moderate or severe disability (that is, needing help with one or more ADL tasks) would increase by 32% from almost one million in 2010, to almost 1.4 million in 2022.

37%

projected real-terms
increase in public
expenditure on social
services and continuing
health care between
2010 and 2022

If the supply of informal care is to keep pace with the need for care, the number of disabled older people in households receiving informal care would need to rise by 31%, from approximately 1.9 million in 2010, to just over 2.6 million in 2022. The number of disabled older people receiving care from a spouse or partner is projected to increase faster than the number receiving care from an adult daughter or son, under base case assumptions. Yet care provided by children would still need to increase over the next 10 years, if the proportion of disabled older people (by age, gender and marital status) receiving care from their children is to remain the same as it is today. Whether the supply of care provided by children will actually rise in line with need is, however, very uncertain (Pickard and others, 2007).

The number of older people receiving local authority home care or direct payments (that is, cash payments instead of care services) is projected to rise by 28% from 295,000 in 2010, to 378,000 in 2022. The number of older people in care homes (and long-stay hospital care) would need to rise by 29%, from 337,000 in 2010, to 433,000 in 2022, to keep pace with demographic changes. Within this total, the number of local authority-supported residents is projected to rise less rapidly than the number of privately-funded residents. The main reason for this difference is the projected rise in the proportion of older people who own their own home and so are generally not eligible for local authority support.

Local authority public expenditure on social services for older people (net of user charges) is projected to rise, under the current funding system and patterns of care, from around £7.3 billion in 2010, to £9.8 billion in 2022 in constant 2010 prices (Table 1). NHS public expenditure on continuing health care is projected to rise from around £2.0 billion in 2010, to £2.9 billion in 2022 in constant 2010 prices. Total net social services and continuing health care public expenditure for older people is projected to rise, under the current funding system and patterns of care, from around £9.3 billion in 2010 (0.74% of GDP), to £12.7 billion in 2022 (0.78% of GDP) in constant 2010 prices; a real-terms increase of 37% (see Figure 1 and Table 1).

Table 1. Personal social services (PSS) net expenditure and continuing health care (CHC) expenditure under base case assumption, 2010–2022 (in £ million)

	PSS net expenditure	CHC expenditure	PSS net and CHC expenditure
2010	7,300	1,970	9,270
2012	7,460	2,040	9,510
2014	7,620	2,120	9,740
2016	7,980	2,250	10,230
2018	8,540	2,440	10,980
2020	9,110	2,640	11,750
2022	9,830	2,890	12,720

Figure 1. Personal social services (PSS) net expenditure and continuing health care (CHC) expenditure on over-65s in England under base case assumption, 2010–2022



Variant assumptions on trends in mortality and disability rates

The ONS 2010-based principal population projections assumes that annual rates of mortality improvement will converge by 2035 to a common rate of 1.2% a year for those born in or after 1939. Those born in the years 1925 to 1938 are assumed to experience higher rates of improvement, and those born before 1924 to experience lower rates of improvement than 1.2% per year.

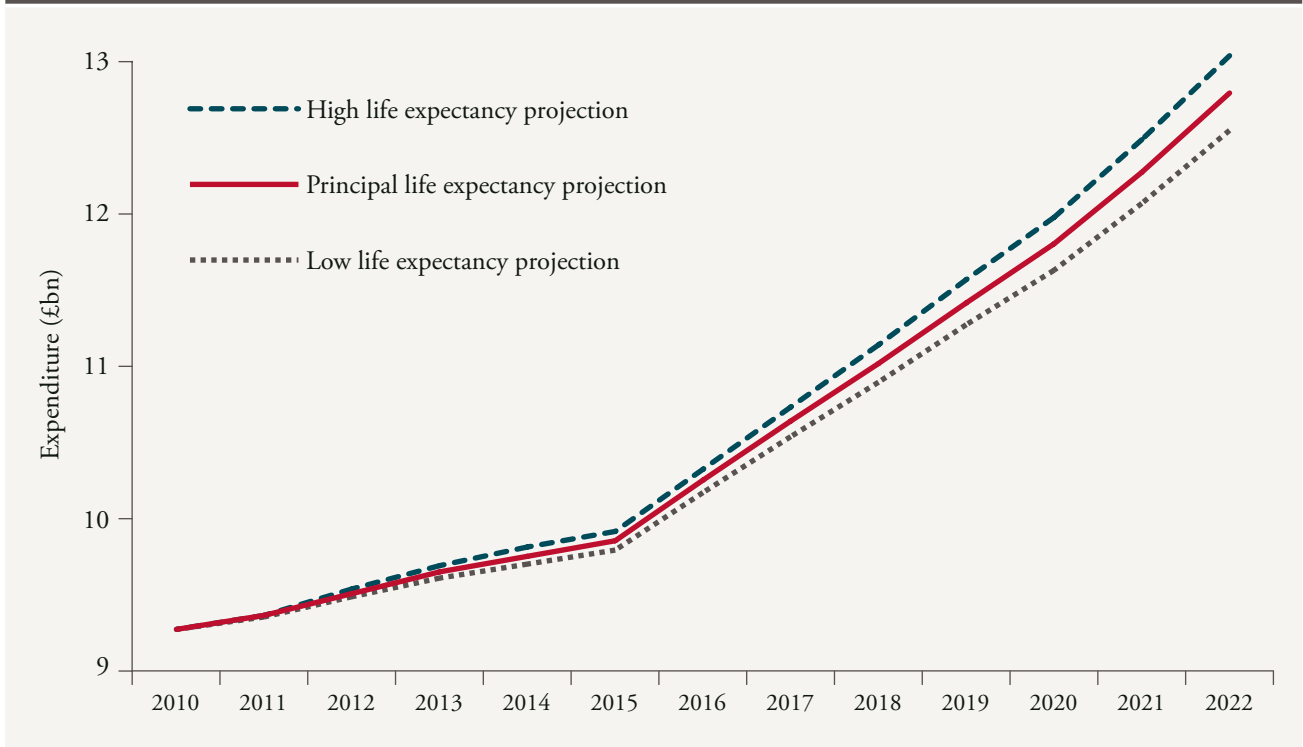
The official projections include two life expectancy variants – a low and a high variant – with underlying 0% and 2.4% per year improvements in mortality, respectively, for most ages. The variant projections assume life expectancy at birth in 2035 to be 2.3 years higher or lower for males, and 1.5 years higher or lower for females, compared with the principal projection.

The number of older people with moderate or severe disability (those needing help with one or more ADL tasks) is projected to rise by 34% under the high life expectancy variant, and 30% under the low life expectancy variant. This compares to 32% under the base case. The alternative life expectancy assumptions have a considerable effect on public expenditure on social care and continuing health care for older people (Table 2). Under the high life expectancy variant, public expenditure is projected to rise from £9.3 billion in 2010 and to £13.0 billion by 2022; an increase of 40%. By contrast, under the low life expectancy assumptions, public expenditure is projected to increase from £9.3 billion to £12.5 billion by 2022; an increase of 35%. For comparison, expenditure would rise by 37% under the principal population projection (base case).

Table 2. Personal social services net and continuing health care expenditure under different life expectancy variants, 2010–2022 (in £ million)

	Base case	High life expectancy	Low life expectancy
2010	9,270	9,270	9,270
2012	9,510	9,530	9,480
2014	9,740	9,790	9,700
2016	10,230	10,310	10,150
2018	10,980	11,100	10,860
2020	11,750	11,920	11,580
2022	12,720	12,960	12,480

Figure 2. Personal social services net and continuing health care expenditure on social care for over-65s in England under different life expectancy variants, 2010–2022



A crucial issue for projecting future demand for social care for older people is whether the prevalence of severe disabilities will remain broadly constant as mortality rates fall. It is possible that the prevalence of severe disabilities will fall as mortality rates in old age fall. Conversely, it is possible that this prevalence will rise as more severely disabled people survive to late old age. This issue of the compression or expansion of disability is the subject of much continuing debate (Bone and others, 1995; Dunnell, 1995). Constant age-specific disability rates may be regarded as a neutral assumption, as used in our base case. Yet, if age-specific disability rates remain constant while mortality rates fall, the number of years with disability will rise, as well as the number of years without disability.

The number of older people with disabilities in the future will depend on the prevalence of certain chronic conditions, and whether optimal treatments to alleviate or postpone disablement due to these conditions are both available and widely diffused throughout the population in need. As part of the evidence for the Wanless review, and later the MAP 2030 project, the PSSRU aggregate older people's model has been linked to SIMPOP, an epidemiological model (Jagger and others, 2006; 2009; 2011; Comas-Herrera and others, 2011) that simulates how changes in the prevalence, disablement and mortality consequences of chronic conditions will affect future disability rates.

We considered a scenario involving the continuation of recent trends in the prevalence of chronic conditions developed by Jagger and others (2006; 2009), under which:

- obesity trends of a 2% increase every year continue,¹ which increases the prevalence of arthritis, stroke, coronary heart disease (CHD) and vascular dementia, and also the resulting dependency associated with these diseases
- the emergence of minority ethnic groups in significant numbers within the older population adds to the prevalence of stroke and CHD
- some prevention strategies are in place, but these fail to offset the increasing prevalence
- treatments continue to focus on reducing the mortality from diseases rather than reducing the disabling effects
- the prevalence of disability in the 65 to 66 age group remains constant
- the prevalence of arthritis, stroke, CHD and mild dementia increases by 2% every two years from 2012 (from 2016 for moderate/severe dementia)
- there is an increase of 10% in the disabling effects of arthritis, stroke and CHD from 2012, and a reduction of 5% in mortality from mild dementia, stroke and CHD from 2016.

54%

projected rise in older people with moderate or severe disability under alternative scenario to the base case

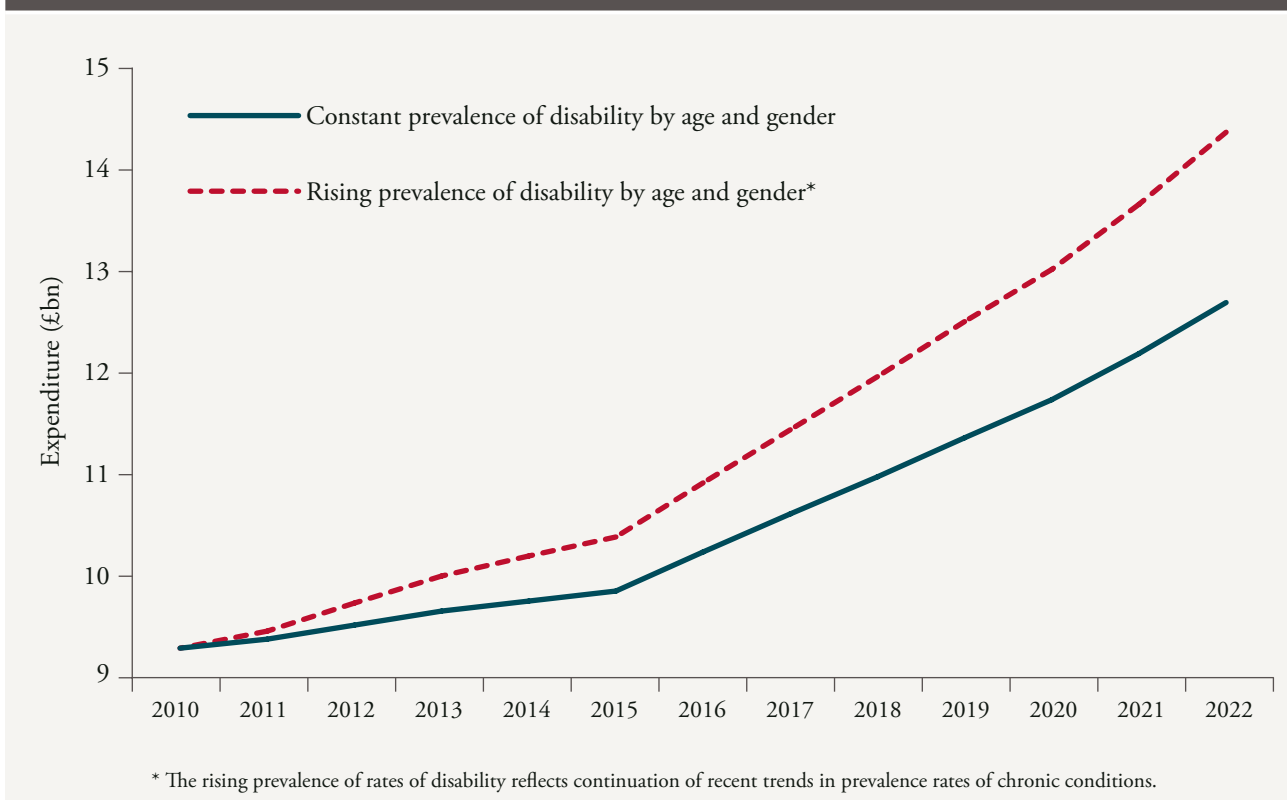
The number of older people with moderate or severe disability is projected to rise by 54% under the scenario set out above, compared with 32% under the base case. This alternative scenario to the base case assumption of constant prevalence rates of disability has a marked effect on public expenditure on social care and continuing health care for older people (Table 3). Under this variant, public expenditure is projected to rise from £9.3 billion in 2010, to £14.4 billion by 2022; an increase of 56%, in comparison with 37% under the principal population projection (base case).

¹ Recent analysis of trends in health conditions and disabilities among older people in the Health Survey for England found that the rate of obesity is rising by 5% annually; rates of limitations in self-care are relatively constant; and rates of limitations in walking 200 yards and in climbing stairs are increasing (Martin and others, 2012).

Table 3. Personal social services net and continuing health care expenditure under base case and continued trends assumption, 2010–2022 (in £ million)

	Base case	Continued trends assumption
2010	9,270	9,270
2012	9,510	9,730
2014	9,740	10,190
2016	10,230	10,920
2018	10,980	11,970
2020	11,750	13,050
2022	12,720	14,420

Figure 3. Personal social services net and continuing health care expenditure on over-65s in England under base case and continued trends assumption, 2010–2022



Variant assumptions on patterns of care

It is likely that there will be changes over time in the balance between informal and formal care, and also in the balance between residential and home-based care. The former will be affected by the future availability of informal care, which in turn may reflect changing attitudes toward caring and changing patterns of employment. The latter will be affected not only by policies to promote home-based care, but also by the future supply and nature of residential care. This may in turn be affected by the availability and cost of capital for the development of care homes.

A change in the balance between residential and home-based care would have no net effect on projected future public expenditure on social care for older people if publicly-funded residential care is replaced by an average of around 20 hours per week of home care. This means that a continuing move from publicly-funded residential to home care does not have much impact on the projections of public expenditure on social care to 2022. However, a move from privately-funded residential care to home care would tend to increase future public expenditure on social care. This is because the value of the person's home, which is normally taken into account in the means test for residential care, is disregarded in the means test for home care. Privately-funded care home residents with modest incomes and (non-housing) wealth would therefore be eligible for publicly-funded home care if they remained in the community.

A change in the balance between formal and informal care would clearly have an impact on future public expenditure on social services for older people. If, for example, the number of disabled older people receiving informal care rose from 1.9 million in 2010 to 2.5 million in 2022 (instead of 2.6 million), and informal care was replaced by an average of 10 hours of publicly-funded home care, the extra costs to public funds in 2020 would be around £850 million in 2010 prices. On this basis, public expenditure on social care and continuing health care for older people is projected to be around £13.7 billion in 2022 at 2010 prices, rather than £12.7 billion under the base case. The overall net effect on public funds of a shift in the balance between informal and formal care would depend on additional factors such as the impact on employment and associated tax revenues.



A change in the balance between formal and informal care would clearly have an impact on future public expenditure on social services for older people

Findings under a capped liability funding system

The Commission on Funding of Care and Support (Dilnot and others, 2011) recommended a cap on (notional) lifetime expenditure on care. They recommended that this cap should be between £25,000 and £50,000, and considered that £35,000 was the most appropriate and fair figure. The cap would apply, in the case of residential care, to that part of a care home's fee that is deemed to cover personal care costs and not to the part attributable to accommodation costs. They also recommended that the upper capital limit, above which care home residents are ineligible for local authority support, should be raised to £100,000.

Wittenberg and others (2011) estimated that the cost to social services of the combination of a cap of £35,000 and an upper capital limit of £100,000 for residential care would be £9.2 billion in 2010, rising to £19.2 billion in 2030, through around £12.3 billion in 2022. This means a net cost to social services relative to the current funding system of £1.5 billion in 2010, rising to around £2.5 billion in 2022, to some £3.8 billion in 2032 at constant 2010 prices. This would amount to an increase of around 20% in 2010 on net social services expenditure for older people under the current system, rising to an increase of around 25% by 2030.

They also estimated that this would result in a saving on disability benefits of some £200 million in 2010, rising to around £400 million in 2030 at constant 2010 prices. These savings would arise because publicly-funded (but not privately-funded) care home residents would lose their disability benefits after four weeks, and the cap would mean that a proportion of privately-funded residents – those who had reached the cap – would become publicly-funded.

Conclusions

We have carried out projections of future public expenditure on social care and continuing health care for older people based on a specified set of base case assumptions. This set of assumptions seems plausible, but is clearly not the only possible set. This means that the projections should not be regarded as forecasts of the future.

Public expenditure on social services for older people is projected to rise under the current funding system from around £7.3 billion (0.58% of GDP) in 2010, to around £9.8 billion (0.60% of GDP) in 2022 in constant 2010 prices, net of income from user charges, and under a set of base case assumptions about trends in the drivers of long-term care demand and in the unit costs of care services. Public expenditure on social care and continuing health care for older people is projected to rise from £9.3 billion (0.74% of GDP) in 2010, to £12.7 billion (0.78% of GDP) in 2022, under base case assumptions and the current funding system.

The sensitivity analysis shows that projected future demand for social services for older people is affected by the use of variant assumptions about future mortality rates and future prevalence rates of disability among older people. Work in collaboration with epidemiologists, carried out as part of the MAP 2030 project, suggests that the assumption of unchanged age-specific prevalence of disability in the context of substantial decreases in mortality rates is not a pessimistic assumption, but may be optimistic (Jagger and others, 2011).


These findings need to be treated with some caution. They are based on a set of assumptions about future socio-economic and demographic trends. The expenditure projections do not constitute the total costs to society of care for older people. That would require inclusion of the costs of a wider range of services to a wider range of public agencies and service users, and the opportunity costs of informal care. It should also be stressed that no allowance has been made here for changes in public expectations about the quality, range or level of care.


The implications of these projections for policy development are discussed in *A Decade of Austerity: The funding pressures facing the NHS from 2010/11 to 2021/22*, which is available from: www.nuffieldtrust.org.uk/nhs-financial-challenge

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