

# Better outcomes, lower costs

Implications for health and social care budgets of investment in housing adaptations, improvements and equipment: a review of the evidence

## Executive summary

Frances Heywood and Lynn Turner

This is an executive summary of a full report which can be downloaded from the Office for Disability Issues website at [www.officefordisability.gov.uk](http://www.officefordisability.gov.uk)

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With the current demographic changes in society, any policy with the power to reduce the costs of health and social care for older and disabled people and enable resources to serve more people must be of interest to Government. If the policy also produces improved quality of life outcomes, it will be all the more welcome.

The Audit Commission and other bodies have asserted that increased investment in housing adaptations and equipment would bring significant savings to the National Health Service and to social services budgets, but funding and structures, compounded by the lack of clear evidence, have created barriers to such investment.

To tackle one part of this problem, this report has gathered the evidence together through a search of the international literature, in the disciplines of medicine, housing studies, ageing studies, economics, health-economics and occupational therapy, and through use of case studies from the grey literature.

The evidence is not complete, and more work is needed to disaggregate the 'multi-factorial interventions' that are known to be effective but not fully understood. Despite this, there are already findings that the provision of housing adaptations and equipment for disabled people produce savings to health and social care budgets in four major ways.

## 1 Saving by reducing or removing completely an existing outlay

The two key savings under this heading are the cost of residential care and the cost of intensive home-care, both major expenses to social services budgets.

### Saving the cost of residential care

For a seriously disabled wheelchair user, the cost of residential care is £700-£800 a week - £400,000 in 10 years. The provision of adaptation and equipment that enables someone to move out of a residential placement produces direct savings, normally within the first year. Home modifications can also help to prevent or defer entry into residential care for older people. One year's delay will save £26,000 per person, less the cost of the adaptation (average £6,000).

Examples from the review include the following:

- In a London borough, two wheelchair users (both the victims of accidents) were able, after the adaptation of suitable properties, to leave residential care that had been costing the local authority £72,800 per year. This will achieve savings of over £30,000 per year for each of them after the first year. 1-2 similar cases per housing authority would produce savings in England of £10 million a year, growing incrementally each year.
- For a 30 year old man in an Italian study, savings in residential care costs of £1.6 million over an assumed life-expectancy of 20 years were projected as the result of investment in home modifications.
- A social services authority, by spending £37,000 on equipment, was able to achieve savings of £4,900 per week in respect of residential care for ten people.<sup>1</sup> The outlay was recouped in less than 8 weeks.

## Reducing the cost of home-care

An hour's home care per day costs £5,000 a year. At a national level, because of the large numbers and burden of revenue payments, the potential for savings is again in £millions:

- Adaptations that remove or reduce the need for daily visits pay for themselves in a time-span ranging from a few months to three years and then produce annual savings. In the cases reviewed, annual savings varied from £1,200 to £29,000 a year.
- Significant savings in home care cost are mainly found in relation to younger (including younger old) disabled people. Adaptations for older people will not routinely produce savings in home-care costs, because 83 per cent of those waiting for adaptations receive no homecare, whilst others are so frail that adaptations will not remove the need for care. In these cases, savings are still to be found but through the prevention of accidents or deferring admission to residential care, and in improved quality of life.

## 2 Saving through prevention of an outlay that would

<sup>1</sup> The expenditure was for 183 people, but the residential care issue related to only ten. It was not possible to disaggregate the information.

## otherwise have been incurred

Savings under this heading include the prevention of accidents with their associated costs, prevention of admission to hospital or to residential care and prevention of the need for other medical treatment. There was evidence of savings of all these kinds.

### Prevention of hip-fractures

- Falls leading to hip fracture are a major problem internationally. In the UK in 2000 they cost £726 million. Housing adaptations, including better lighting, reduce the number of falls.
- There is a 30% increased risk of fracture of the hip for older women if they are suffering from depression. There is evidence that the most consistent health outcome of housing interventions is improved mental health. Findings on the impact of adaptations include 70% increased feelings of safety and an increase of 6.2 points in SF 36 scores for mental health.
- Visual impairment leads directly to 90,000 falls per year in England and Wales, at a cost of £130 million. The chances of hip-fracture for those with poor depth perception is 6 times the norm. Poor quality lighting in the homes of older people puts them at greatly increased risk. Swedish research indicates large savings to be made through improvements to housing and suitable equipment for people with visual impairment.
- People fall whilst waiting for adaptations, which are frequently delayed by lack of funding. The average cost to the State of a fractured hip is £28,665. This is 4.7 times the average cost of a major housing adaptation (£6,000) and 100 times the cost of fitting hand and grab rails to prevent falls.

### Prevention of other health costs

- The lack of timely provision of equipment and adaptations for disabled people leads to costly physical health problems. Effects of non-provision include contractures, pressure sores, ulcers, infections, burns and pain. Interventions of adaptation and equipment are highly effective in preventing these physical health problems. Measured effects in international studies include 50% reduction in pain and 100% reduction in burns.
- The provision of adaptations and equipment can save money by speeding hospital discharge. It can also prevent admission to hospital by preventing accident and illness. The estimated saving from the Welsh Care and Repair agencies' Rapid Response Programme is between £4million and £40million.
- The Audit Commission in three successive reports has stressed the effectiveness and value of investment in equipment and adaptation to prevent unnecessary and wasteful health costs.

### Prevention of health care costs for carers

- For parent care-givers without adaptations and equipment there is a 90% chance of musculoskeletal damage; falls leading to hospitalisation, and stress caused through inadequate space. When suitable adaptation/equipment is supplied there is improvement to physical and mental health of the carers.

### Prevention of admission to residential care

- Adaptations give support to carers. By preventing back injuries and reducing stress, they lessen the costs to the health service. Carers in turn, if they are well supported, will save the costs of residential care.

### 3 Saving through prevention of waste

Waste is money spent with no useful outcome. There is evidence that much of the waste in regard to adaptations comes from under-funding that causes delay or the supply of inadequate solutions that are ineffective or psychologically unacceptable.

- Delay was leading to more costly options. One person received 4.5 additional home-care hours a week for 32 weeks at total cost of £1,440, when a door-widening adaptation costing £300 was delayed for 7 months for lack of funding.
- Where there is delay in supplying equipment or adaptations, the assessment may be out of date and the item too small or no longer suitable. People of all ages develop habits of dependency when they have no choice, which are then hard to break.
- One local authority spent £89,000 in one year on adaptations for applicants who, because of long delays, died before they could obtain any real benefit from them.
- The waste is also a waste of human potential. Both housing adaptations and assistive technology have helped people into employment who would otherwise not have achieved this.
- The Audit Commission pointed out that funding levels for disabled facilities grants in 1998 were sufficient for just one in 26 eligible households.<sup>2</sup> As with the later reports on equipment, there is a clear message that increased investment would save waste and be better value for money.

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<sup>2</sup> Audit Commission (1998).

## 4 Saving through achieving better outcomes for the same expenditure

- Adaptations produce improved quality of life for 90 per cent of recipients and also improve the quality of life of carers and of other family members.
- If, for the same money, a disabled person may have a carer come every day in to lift them on and off a commode and help them to wash, or may choose an automatic toilet and level access shower to use whenever they please, they will normally choose the solution that offers more dignity and autonomy.
- The average cost of a disabled facilities grant (£6000) pays for a stair-lift and level-access shower, a common package for older applicants. These items will last at least 5 years. The same expenditure would be enough to purchase the average home care package (6.5 hours per week) for just one year and three months.
- There is substantial evidence that for the average older applicant, an adaptation package will pay for itself within the life-expectancy of the person concerned and will produce better value for money in terms of improved outcomes for the applicant.

## Conclusion

The Audit Commission in its report 'Fully Equipped' wrote of the clinical effectiveness of equipment in achieving good outcomes.

'If a drug was discovered with a similar cost-profile, it would be hailed as the wonder-drug of the age'<sup>3</sup>

The evidence concerning adaptations and improvements is not dissimilar. Not all adaptations save money. But where they are an alternative to residential care, or prevent hip fractures or speed hospital discharge; where they relieve the burden of carers or improve the mental health of a whole household, they will save money, sometimes on a massive scale.

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<sup>3</sup> Audit Commission 2000, p64.

