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'The billion dollar question': embedding prevention in older people's services - 10 'high impact' changes

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Key policy drivers

In recent years, health and social care services in all sectors have found themselves under increasing pressure due to a series of demographic, social and technological changes. As part of the previous government's 'Big Care Debate', for example, policy makers have been clear that:

> *Society is going through huge change. People are living longer than ever before, and the proportion of older people in our society is growing. We have different social values, and we expect more choice and control over all areas of our life, including public services. And too often the existing system does not live up to the expectations of those who depend upon it… A radical rethink of the care and support system is needed to address these challenges. Otherwise, it is likely that families, including dependent children within the family, will be under pressure to provide inappropriate levels of care, and in some cases people will go without support. If we fail to get a grip with these long-term issues we will fail to provide quality of life for potentially large groups of people, and consequently demand for NHS services will increase inappropriately.* (HM Government, 2008, p.8)

Moreover such pressures are set to increase rapidly (in a difficult financial climate). According to official estimates (HM Government, 2008, 2009a):

- In the next 20 years, the number of people aged over 85 in England will double and the number over 100 will quadruple.
- In 20 years time, there could be a funding gap of at least £6 billion (and this is if we only continued with current services that are already being criticised for being of insufficient quality and flexibility).
- If the current system remains unchanged, then the cost of disability benefits could rise by almost 50 per cent in the next 20 years, while the cost of long-term care could rise by 17 per cent by 2027/28.

Additional analysis by HSMC on *The Case for Adult Social Care Reform* (Glasby *et al*., 2010) suggests that social care costs alone could double in twenty years without fundamental and ongoing reform.

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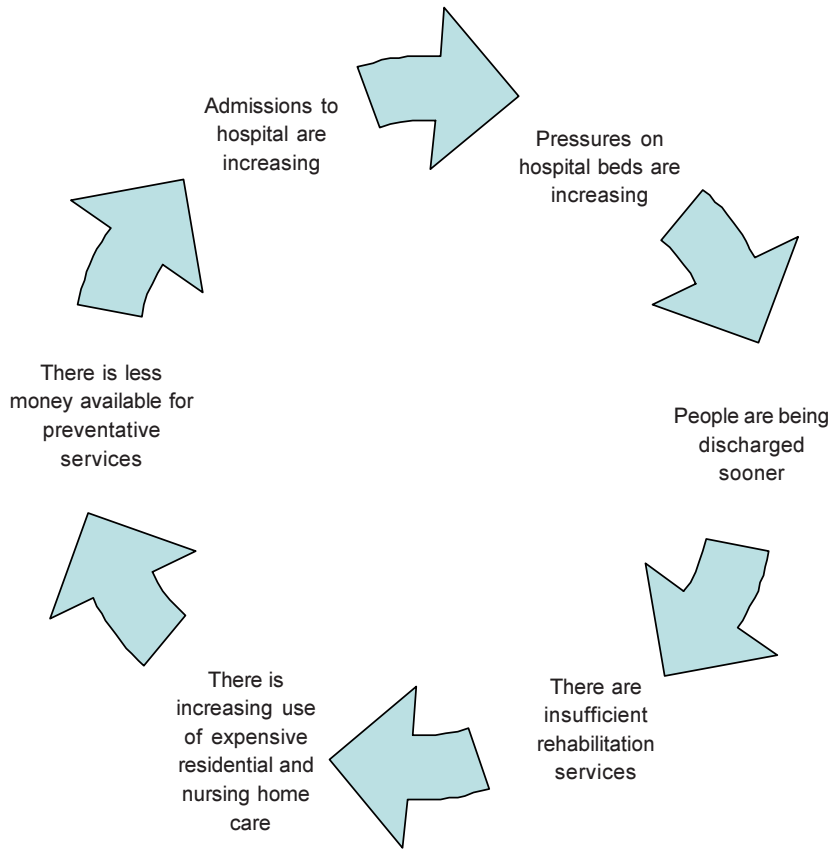
In response to this, the Audit Commission (1997, 2000) has described the pressures in the system in terms of a 'vicious circle' (see Figure 1). As hospital admissions rise, it is argued, lengths of stay decline, opportunities for rehabilitation are reduced, there is an increased use of expensive care home places, and less money for rehabilitation/preventative services - thereby leading to more hospital admissions. To break out of this situation, there is a corresponding need to invest more fully and strategically in both prevention and rehabilitation – helping older people to stay healthier, more independent and more socially included for longer and to recover these capacities as fully as possible when they do require hospital treatment.

Figure 1: The vicious circle, Audit Commission (1997, 2000)



A similar approach has also been suggested by the former Association of Directors of Social Services and the Local Government Association, who emphasise the need to 'invert the triangle of care' (see Figure 2). At present, it is argued, resources are most focused on a relatively small number of older people in crisis, with insufficient investment in preventative services. By inverting the triangle, it is hoped that services can begin to invest in preventative services for a larger number of older people, thus reducing future crises over time.

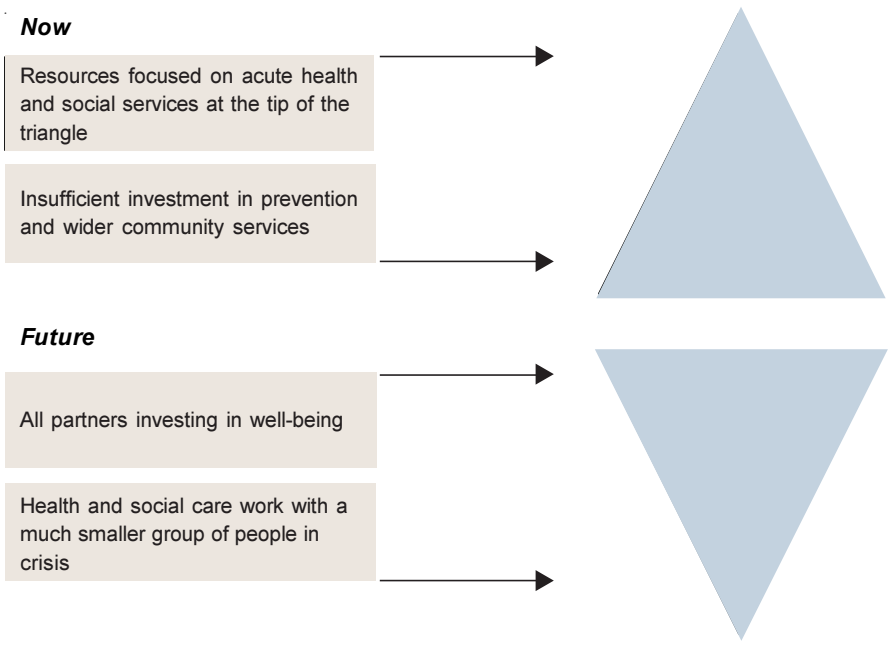
Reviewing the evidence

Against this background, this paper seeks to identify '10 high impact changes' with regards to prevention in older people's services. Such an approach builds on the work of the NHS Institute, who have published a series of guides on high impact changes in a range of areas including service improvement and delivery (NHSI, 2004) and nursing and midwifery (NHSI, 2009). However, in many ways this is much more of a *discussion paper* which reviews the emerging evidence, but which is very conscious of the limited nature of the evidence. This is because, in our view, knowledge of 'what works' in prevention is much more fragmented and under-developed in such a broad and complex an area than it might be for a more focused and longer-standing area of policy and practice. Over time it has proved difficult to establish a firm evidence base around 'what works' in prevention since:

- Some changes take a long time to become apparent (for example, the longer term impact of diet or exercise).
- It can be difficult to attribute causality especially over time given the range of other policy and practice changes underway all at once.
- Research evidence rarely addresses the counterfactual – what would have happened without the preventative service and would problems have been avoided in any case?
- There also seems to be something of a bias in the research literature towards interventions that promote physical health, with less attention paid to what may well prove to be the crucial issues of social contact, involvement and engagement, and the opportunity to make a valued contribution to society. Although we are starting to learn much more about the importance of these issues, this remains a key caveat when reading the rest of this policy paper.

In crude terms, therefore, the paper represents our 'best guess' at high impact changes (as far as the available evidence suggests), rather than a simple and unambiguous statement of what to do. As we suggest in the main body of the text, moreover, even some of the ten approaches we review below are highly aspirational and the jury remains genuinely out on how best to take forward this agenda.

Figure 2: Inverting the triangle of care, ADSS/LGA (2003)



To supplement this paper, we recommend the recently published national evaluation of the government's Partnerships for Older People Projects (POPPs) (see Windle *et al*., 2009), as well as the previous national evaluation of Health Action Zones (see, for example, Barnes *et al*., 2005). Since both national initiatives were extremely complex and multi-faceted, they do not fit easily into the confines of the current review (which is focused primarily around the potential benefits of specific interventions). However, these studies shed important light on some of the key challenges and opportunities when developing a preventative approach and when seeking to work across the whole system.

Our approach

This paper draws on two main sources. The first is an EU review of prevention and long-term care in older people's services across 14 European counties (known as Interlinks – see **www.euro.centre.org/interlinks**). As part of this ongoing study, HSMC has produced a national report on prevention and rehabilitation in English older people's services (Allen and Glasby, 2009) which was reviewed and validated by a National Expert Panel of key stakeholders (see Appendix 1). Building on this, the current paper draws on some of the underlying analysis from our prior national report and we have invited the same panel of experts to comment on a draft of our high impact changes. In addition, the broader Interlinks study has started to develop some working definitions of key terms, and we have drawn on this underlying work in order to produce the following three-fold statement/definition of prevention:

> *A key aim of health and social care services is to help older people with care and support needs to continue to live a chosen lifestyle and to have as good a life as possible. This might involve:*

- *Preventing the person from becoming ill or frail in the first place (Primary prevention)*
- *Helping someone manage a condition as well as possible (Secondary prevention)*
- *Preventing a deterioration in an existing condition(s) (Tertiary prevention)*
- *Providing active support to help someone regain as much autonomy and independence as possible (Rehabilitation)*

The second key source is a more recent review of the social and economic benefits of adult social care, commissioned by the Department of Health and Downing Street (Glasby *et al*., 2010). This is a much wider study, exploring a range of issues and a broad evidence base. However, several key sections of this overarching study touch on the issues reviewed below and our subsequent analysis draws significantly on this previous research (particularly when reviewing evidence on partnerships and personalisation).

Building on our previous national and international research, we have identified the ten approaches that seem most promising when seeking to develop a more preventative approach in older people's services. As stated above, we have tried to 'validate' our analysis via the Interlinks National Expert Panel. We have also shared these ten interventions more informally with a range of different stakeholders involved in the design, delivery and receipt of health and social care in order to 'triangulate' our data as much as possible. Interestingly, different stakeholders from different backgrounds have not always agreed on these issues, and we have inevitably had to make some difficult choices when presenting our final ten interventions (perhaps mirroring the contested nature of the broader evidence base).

In presenting our ten high impact changes, we have drawn on the three-fold Interlinks definition of primary, secondary and tertiary forms of prevention – moving from the former towards the latter as the policy paper progresses. In practice, of course, some interventions defy easy categorisation and may combine different types of prevention at the same time. Interestingly, the bulk of our ten changes tend to come at the secondary/tertiary end of the spectrum – perhaps suggesting that we know more about how to help people manage a condition and/or prevent its deterioration than we do about how to stop people becoming ill or frail in the first place.

Overall, this paper reviews (see also Table 1):

- Promoting healthy lifestyles (primary prevention)
- Vaccination (primary prevention)
- Screening (primary/secondary/tertiary prevention)
- Falls prevention (primary/secondary/tertiary prevention)
- Housing adaptations and practical support (primary/secondary/tertiary prevention)
- Telecare and technology (secondary/tertiary prevention)
- Intermediate care (secondary/tertiary prevention)
- Re-ablement (secondary/tertiary prevention)
- Partnership working (may have longer-term impacts, currently unknown)
- Personalisation (may have longer-term impacts, currently unknown)

Table 1: Overview of interventions

Primary prevention	Secondary prevention	Tertiary prevention	Longer-term/more aspirational
Healthy life styles			
Vaccination			
Screening	Screening	Screening	
Falls prevention	Falls prevention	Falls prevention	
Adaptations/practical support	Adaptations/practical support	Adaptations/practical support	
	Telecare	Telecare	
	Intermediate care	Intermediate care	
	Re-ablement	Re-ablement	
Partnership working	Partnership working	Partnership working	Partnership working
Personalisation	Personalisation	Personalisation	Personalisation

Promoting healthy lifestyles

> *"Adults who are physically active have a 20-30% reduced risk of premature death and up to 50% reduced risk of developing the major chronic diseases such as coronary heart disease, stroke, diabetes and cancers."*
> (Chief Medical Officer, 2004)

The promotion of health and wellbeing in older people tends to focus on the three areas of physical activity, diet and social activity – and this is becoming increasingly important in national policies. Despite a relatively limited evidence base historically, there are now a series of local projects, new services and emerging research that should help to develop better understandings of the issues at stake and to tailor and target future health promotion strategies and programmes to maximise health outcomes for older people.

There is vast evidence of the preventative impact of healthy lifestyles at an individual level. For instance, the key prevention measure for dementia, experienced by around 700,000 people over 65 years in the UK (Knapp *et al.*, 2007), is good diet, physical exercise and mental engagement (Eggermont *et al.*, 2006). Promotion of healthy ageing is complementary to other impact areas such as vaccination, falls prevention, home care re-ablement and effectiveness of screening in old age (see below for further discussion). In addition to the widely reported benefits at an individual level, European research also highlights that health promotion is of great importance for societies as well as individuals. Lis *et al* (2008) summarise individual and societal rationales for health promotion within ageing populations:

- Health is a basic right of (older) people.
- Health is one of the most important predictors of life satisfaction in old age.
- Health is a prerequisite for an independent life in old age.
- Health is vital to maintaining an acceptable quality of life in older individuals and ensuring the continued contributions of older people to society.
- Health is a determinant of economic growth and competitiveness (for example, decreasing early retirement of older workers).
- A healthy population reduces health-care spending and lowers the burden on the health-care system.

In 2001, the National Service Framework for Older People (Department of Health, 2001b), set 'the promotion of health and active life in older age' as its eighth standard. As well as calling for the development of new services for physical exercise and nutrition, the NSF also draws attention to the importance of equal access to services and the potential role of wider agencies (such as environment, transport, culture, education etc). Access to specific-disease prevention programmes is seen as a crucial aspect of health promotion. The NSF also sets out specific actions addressing effective promotion of health for mental health, coronary heart disease and cancer.

To date, there is a growing body of evidence detailing the importance of the social and emotional aspects of prevention for older people. Depression and social isolation affect one in seven people over the age of 65 (Graves *et al.,* 2006). Social contact, rewarding activity, opportunities for engagement and participation are essential for the promotion of wellbeing and mental health – and this may have knock-on consequences for physical health and sustaining independence. Barnes *et al* (2006) used data from the English Longitudinal Study of Ageing (ELSA) to explore the different types of social exclusion and how these are experienced throughout the life course. Findings illustrated that multiple exclusion is associated with a diverse range of the older population. At the local level, this suggests that a co-ordinated policy involving all the relevant agencies can help link the support that older people need to reduce exclusion and improve their quality of life. Providing greater access to integrated services can help to provide the assistance that the most disadvantaged older people require for an independent and pleasurable old age.

Evidence around the benefits of social and civil inclusion also comes from older people themselves. The Joseph Rowntree Foundation's 'Older People's Inquiry' (Raynes *et al.,* 2006) explored the experiences of older people and of professionals to identify future areas for service improvement and development. Initial areas identified as being valued by, and thus crucial to the wellbeing of, older people were:

- Comfortable and secure homes
- An adequate income
- Safe neighbourhoods
- Getting out and about
- Friendships and opportunities for learning and leisure
- Keeping active and healthy
- Access to good, relevant information

Similarly the national evaluation of POPPs (Windle *et al*., 2009) found that the projects (many of which involved older people in their design/management, on staff recruitment panels, as volunteers or in the evaluation) appear to have improved users' quality of life.

Vaccination

Vaccines are acknowledged by the UK government as the most cost-effective health intervention for prevention of disease (Parliamentary Office of Science and Technology, 2008). Although the majority of vaccination programmes are implemented in childhood (for example, the national childhood immunisation programme), there are several reasons why vaccination is seen as increasingly important within older cohorts:

- Older people may be at increased risk of serious illness or death resulting from certain common infections.
- Immune function decreases with age, leading to more severe and more frequent infections.
- Older people may have not have received immunisations in younger years and some newer vaccines may not have been available to them when they were children.
- Boosters may be recommended for immunity that decreases rapidly with age.

The vaccinations most common for older people are influenza and pneumococcal vaccines. With straightforward and demonstrable preventative properties, the World Health Organisation (2003) set a target of 75 per cent for uptake of influenza vaccination for those aged over 65. Similarly, UK guidelines suggest that pneumococcal immunisation, providing substantial protection against septicaemia, meningitis and pneumonia, should be offered to everyone aged over 65 years. However, there is a gap between international/national recommendations and actual practice. Department of Health (2009e) evidence shows that England is close to the influenza target, but coverage for pneumococcal vaccine remains low (Stuck *et al*., 2007).

Concern around the gap between the clear evidence of the preventative value of vaccination for older people and actual uptake has been expressed at an international level. A recent review of evidence by Michel *et al* (2009, p.127) shows that infectious and vaccine-preventable disease remains a significant cause of morbidity and mortality in the European population of adults aged 65 and over. Influenza, pneumococcal disease, shingles and hepatitis A and B are thought to carry risks for the increasing population of older people which will continue into the next decades in the absence of specific vaccines programmes. There is further concern that an opportunity for promotion of healthy ageing is being missed by not implementing routine influenza vaccinations between the ages of 50-64, a life stage where 'high risk factors' are prevalent (Nichol *et al*., 2009). These issues are especially relevant for older people who travel internationally, such as migrant populations.

Key evidence underpinning calls for further development and implementation of an organised programme of vaccination to benefit older people includes:

- Influenza vaccination is associated with a 27 per cent reduction in the risk of hospitalisation and a 48 per cent reduction in death (Nichol *et al*., 2007).
- Changing demographics and life expectancies mean ongoing research is required to understand the effects of vaccine within the life course. For instance, the optimal age for vaccination to promote healthy ageing is much debated, with some advocating that routine vaccination between 50 and 75 years would be more effective than the traditional approach of 65 years and over (Simonsen *et al*., 2007).

The work of the 'Joint Vaccine Working Group of the European Union Geriatric Medicine Society and the International Association of Gerontology and Geriatrics-European Region' has identified some of the key barriers faced within national health systems to implementing preventative vaccination services for older people. This work led to the identification of policy goals and related actions (see Table 2). Despite having been developed at an international level, the policy goals contain messages which may be of use to local policy makers in the UK.

Where vaccination is included within local partnership targets and practices, this is often for infants and children and also for flu and pneumonia. However, the policy goals, points and actions in Table 2 give some further insight into how vaccination may be incorporated into local provision and provide a 'life course' approach to health, including healthy ageing. A key task remaining at a national level is to refine the current system of incentives (for example the Quality and Outcomes Framework) to encourage effective local initiatives and practices amongst physicians and policy makers, mindful of the rights of older people and others to refuse such offers and to be informed of the risks.

Screening

Screening is the process of testing undiagnosed people for risk of developing conditions. Screening is not a form of diagnosis, rather it sorts people into two groups: people who have an increased chance of having a condition (positive screening result) and people who do not have an increased chance of having a condition (negative screening result). People with positive screening results may receive follow up diagnostic tests and treatments. Screening programmes may help individuals to avoid illness, allow early diagnosis and intervention, and increase the likelihood that a condition can be cured or managed effectively. For example, breast screening reduces the chances of dying from breast cancer by about 30 per cent for people between 50 and 65 years, and by about 45 per cent for people between 65 to 69 years. Cervical screening is thought to reduce chances of developing cervical cancer by about 90 per cent. Health screening and testing available to older people in England is summarised in Table 3. Some of the risks of screening account for its lower levels of use among people who are less likely to benefit from the process.

As life expectancy increases and the number of older people rises, there is a need for policy makers and researchers to keep on top of the question of the age cut off for effective screening practice. For instance, at what age do the costs and harms of screening (e.g. false positives)

Table 2: Improving uptake of routine vaccinations in older people

Policy goal	Key points	Actions
Promote life course vaccination to promote healthy ageing by limiting the burden of illness linked to vaccine-preventable infectious disease	A life course vaccine programme contributes to healthy ageing. A life course vaccine programme helps to anticipate age-related immunological decline	Adopt a European harmonised life course vaccination schedule 'a lifetime programme of vaccination' (endorsed by EUGMS and IAGGER)
Expand opportunities for patients to receive vaccination	Routine preventative GP health checks, including vaccination. Information technology can encourage physician-patient conversation/knowledge about effective prevention	Check vaccination status of older patients on a routine basis and make vaccine recommendations appropriate
Develop patient knowledge and improve attitudes and beliefs	The benefits of vaccination must be communicated more effectively to patients, as well as the risks. Policies should empower patients to monitor their vaccination records	Conduct a health literacy campaign to make older people aware of the benefits and risks of vaccination. Distribute and encourage use of a permanent immunisation record

(Adapted from ILC, 2009)

begin to outweigh the benefits? What are the ethics of screening for conditions where there is likely to be no intervention? Table 3 suggests that the main drive of current screening programmes tend to end at 70 years, when invitations cease to be sent out. After this point patient requests and GP decisions become central to securing future screening and testing.

Old age and the presence of other chronic illnesses (co-morbidity) have been identified as significant barriers to screening practices (Kiefe *et al.*, 1998). However age and presence of chronic illness are not always clinically justified reasons not to screen individuals. Sox (1998) called for GP decision-making in this area to be rigorous and patient-based, addressing multiple aspects of the individual in question. He observed that with a more personalised approach "we will occasionally find ourselves offering screening to a healthy, vigorous 90-year-old" (Sox, 1998, p.425). Factors contributing to the process might include:

- The changing physiology of individuals. In some cases screening is clinically less effective as risk factors in young people are not the same as risk factors in older people. For instance, testing for cholesterol in older people has been found to be much less effective as an indicator of heart disease, particularly for men (Kronmal *et al.*, 1993).
- How the patient feels about screening, diagnosis and treatment.

Screening is far more than just having a mammogram, cervical smear test, ECG, blood test or other check. In terms of delivering a national programme, the core activities of service planning and delivery are undertaken by local organisations, drawing on support from regional or national structures. Responsibility for these activities lies explicitly with the Regional Directors of Public Health. The Interactive Learning Module on screening, produced on behalf of the Department of Health (Raffle, 2009), outlines the key components of screening programmes, some of which are local and some regional/national responsibilities (see Figure 3).

Falls prevention

Every year in the UK approximately 35 per cent of those over 65 years and 45 per cent of those over 80 years experience a fall (Department of Health, 2009a). Falls can have a dramatic impact on the health of older individuals. The serious physical injuries sustained in around a quarter of falls often lead to associated decline in confidence and mental health as well as further physical complications. Falls prevention frequently goes hand in hand with rehabilitation, as there are particular risks around recurrent falls and addressing the fear of falling (which can ultimately lead to loss of independence).

Interventions in falls prevention are diverse and span all forms of prevention (see Table 1), as well as rehabilitation. This is a key issue for local service planning which should consider different risk groups and the multiple agencies and actors who could contribute to preventing falls. The Department of Health (2009a) guide to fall and fracture interventions captures the importance of the breadth and diversity of fall prevention activities by highlighting four distinct objectives for different risk groups, including those who have already experienced a fall (see Box 1).

A Europe-wide literature search on prevention and rehabilitation for older people with care and support needs (Allen *et al.*, 2009) revealed that falls prevention is a major research focus compared with other interventions for older people. Kaunnus (2005) has outlined the varied methods and fall prevention programmes available for older people, including physical training (such as T'ai Chi etc), vitamin D and calcium supplements, withdrawal of psychotropic

Box 1: Four objectives for developing falls prevention services

Improve patient outcomes and improve efficiency of care after hip fractures through compliance with core standards.

Respond to a first fracture and prevent the second – through fracture liaison services in acute and primary care settings.

Early intervention to restore independence – through falls care pathways, linking acute and urgent care services to secondary prevention of further falls and injuries.

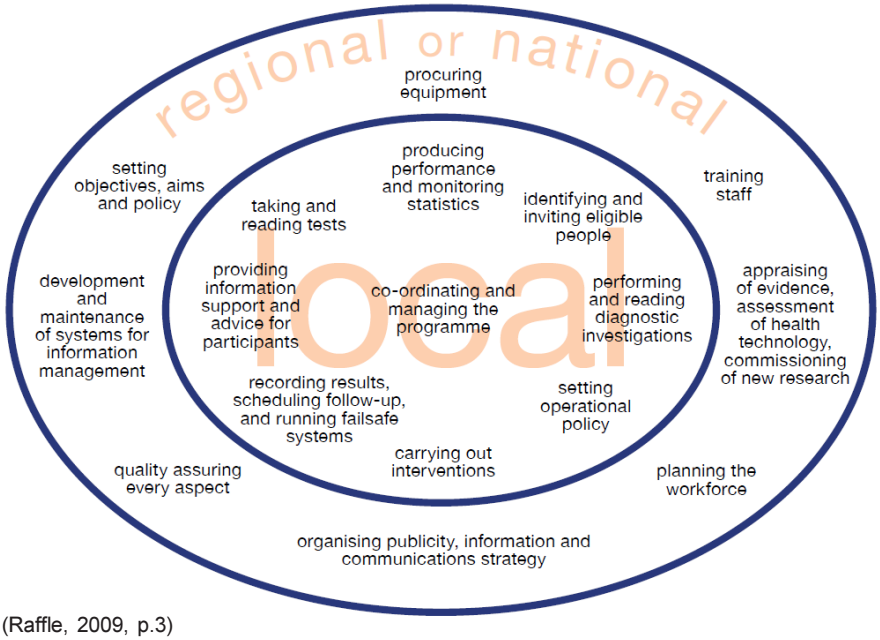
Prevent frailty, promote bone health and reduce accidents – through encouraging physical activity and healthy lifestyles, and reducing unnecessary environmental hazards.

(Department of Health, 2009a, p.2)

Table 3: Screening and testing for older people

Condition	Type of intervention	Eligibility
Cervical cancer	Screening programme	Women aged 50-64 invited every 5 years. From 65 years, only those with previous abnormal results are invited. Those over 65 who have never been screened for cervical cancer are entitled to one screening, regardless of age
Diabetic retinopathy	Screening programme	Annual screening for people with diabetes, regardless of age
Blood pressure/ hypertension	GP test	GP should test every 5 years, then annually over 75 years
Body mass index related illness	GP test	BMI should be checked by GP on registration and thereafter at GP's discretion
Lung and airway function (asthma, COPD)	GP test	Peak flow or spirometry test administered at GP discretion, if symptoms shown, regardless of age
Kidney function and diabetes	GP test	Sample tests for these conditions are administered upon GP registration and not repeated unless symptoms are displayed, regardless of age
Cholesterol	GP test	Test carried out by GP. There is no minimum requirement but testing is seen as important, linked to high blood pressure or obesity or family history of cholesterol or heart disease
Heart disease	GP refer to test	Electrocardiogram – only if patient is suspected of having a heart problem, regardless of age
Anaemia	GP test	Sample test available where symptoms present, regardless of age
Thyroid disorder	GP test	Thyroid function test available with presentation of symptoms, regardless of age
Breast cancer	Screening programme	From 50 years women are invited every 3 years. After 70 years invitations are not sent, however patients continue to be eligible for screening on a three yearly basis
Bowel cancer	Screening programme	Screening tests are now sent out through the post every two years from age 60 until the age of 70 years. After 70 years test kits can be requested but will not be sent automatically
Prostate cancer	GP test	Sample test conducted by GP on presentation of symptoms, although only one third of those with a positive result from the blood test will actually have prostate cancer. Further action decided between GP and patient
Osteoporosis	GP refer to test	DEXA x-ray scan for bone density. GP refers women over 50 for testing based on presentation of symptoms or risk factors
Glaucoma	Optician or GP refer to test	From the age of 40 people are susceptible to developing glaucoma. This can be picked up in routine eye checks (NB free to relatives of people with this condition)
Abdominal aortic aneurysm	Screening programme	All men are offered AAA screening at 65 years. After this point they are eligible to self-refer for future screenings

Figure 3: Screening Programme Map



(Raffle, 2009, p.3)

medication, cataract surgery, professional environment hazard assessment and modification (see housing adaptations discussion below), hip protectors and comprehensive falls prevention programmes. He notes that despite the quantity of research and evaluation, programmes need systematic implementation in order to form reliable evidence around effectiveness.

In addition, improvements in podiatry services are important to reducing the risk of falling (Menz *et al*., 2006). As outlined in the Department of Health's prevention package for older people (2009b), foot care can support independence, mobility, socialisation and associated mental well-being. Foot problems are one of the major causes of walking difficulties in older people, impairing both balance and function.

The theme of personalising services (see below) reappears in relation to falls prevention, as targeting measures towards appropriate users is seen as a crucial aspect of achieving effective falls prevention. Evidence suggests that careful assessment of individuals and matching with tailored fall prevention methods is beneficial. For instance vitamin D and calcium supplementation and hip protectors have been seen by some as more appropriate measures for older people in residential care. The diversity of types of fall prevention and of types of service user make individual assessments and personalisation of services crucial.

With regard to individual motivation, factors that enhance particpation are similar throughout Europe (Yardley *et al.*, 2006). In a comparative study of Germany, Denmark, UK, Switzerland and the Netherlands, individuals were motivated to participate in strength and balance training by a wide range of perceived benefits (interest and enjoyment, improved health, mood, and independence) and not just reduction of falling risk. This highlights once again the importance of the psychological and social aspects of health, building social confidence and engagement amongst older people. Participation is also acknowledged to be encouraged further by social approval from family and friends, and falls prevention programmes are felt to have wider social and psychological benefits for service users (see, for example, Sjosten, 2008).

Barriers to individual participation include denial of falling risk, the belief that no additional falls prevention measures are necessary, practical barriers to attendance at groups (e.g. transport, effort and cost) and a dislike of group activities. Yardley *et al.* (2006) suggests that, given that many older people reject the idea that they are at risk of falling, the uptake of strength and balance training programmes may be promoted more effectively by emphasising more general positive benefits for health and wellbeing in non-medical terms (e.g. confidence, enjoyment and independence). A direct invitation from a health professional to participate is important, and the potential usefulness of home-based programmes is highlighted for those who dislike or find it difficult to attend groups.

There is positive evidence around the cost effectiveness of falls prevention programmes and measures. Ferraz-Nunes (2005) highlights the great potential for reducing costs and achieving significant health benefits within older populations. This implies a reduction in the total costs for society and an improvement in quality of life and life expectancy.

In the UK, the key interventions are seen by the government (Department of Health, 2009a) as:

- Targeted use of validated home safety assessments.
- Accessible evidence-based strength and physical exercise programmes.
- Fracture liaison services to ensure initiation of secondary prevention medical treatments for osteoporotic fragility fractures.
- Close adherence to NICE appraisal guidance with monitoring by local audit.
- Case-finding systems in hospital and community settings to identify those at high-risk (e.g. The Q research projects – see Hippisley-Cox *et al.*, 2007).

There is a large quantity of information available about good practice within falls prevention, including guidance, audit evidence and tools for commissioners and practitioners (see, for example, Department of Health, 2009a; NHSI, 2006; NICE, 2008; WHO, 2009). Within local service planning, two major aspects are highlighted within the literature: the incorporation of falls prevention activities in local joint needs assessments and local area agreements; and the benefits of multi-agency approaches (see Box 2). There is also the need to consider the acceptability of all these approaches for older people.

Housing adaptations and practical support

Developing services and access to funding for improvements to older people's homes has scope to promote autonomy, to prevent illness and to reduce demands on both families and formal services. Such interventions span different types of prevention and have particular significance for secondary/tertiary forms of prevention (such as housing adaptations following accident or illness). In addition there is also potential for primary prevention outcomes as a result of adaptations providing safer and more comfortable living environments (e.g. falls prevention, heating etc.). As examples,

Home Improvement Agencies (HIAs), often known as Care and Repair or Staying Put schemes, deliver a range of services to older people with housing adaptation needs, and a wide range of other organisations also provide lower-level handyperson services. Typical services include:

- Small essential jobs such as: adjusting/ replacing ball cocks, taps, bathroom seals, electric sockets, light fittings and shelving.
- Disability related adaptations (including larger scale work) such as: handrails, ramps, stair lifts, converting downstairs rooms to bedrooms and/or bathrooms, ground floor extensions and adapting controls for heating, lighting and other appliances to make them easier to use.
- Additional security fittings such as: safety chains, locks, bolts, smoke alarms, security lighting and spy holes.

In addition to these physical adaptations, HIAs and other organisations working with older people also provide services such as:

- Tailored housing advice and information, including help with different housing options.
- Home safety and security checks.
- Advice on making homes energy efficient and referral to agencies such as Warm Front for low cost improvements.

Overall, low-level practical support initiatives can have dramatic outcomes – both in terms of increased quality of life and in terms of lower use of formal services and institutional forms of support (see, for example, Heywood *et al.*, 2007). This form of support also seems to be particularly important to older people themselves, who often suggest that such services can have a positive impact on their health, well-being and independence (see, for example, Qureshi *et al.*, 1998).

In England a national system of financial support for home adaptation has existed since the 1970s. Since 1986, the national charity 'Care and Repair England', working with other voluntary sector partners, has provided a further drive for change. Over time, practical support initiatives have gained increased government support. Thus, in 2010 a Select Committee Inquiry concluded that a £40 billion investment in social rented housing (The Decent Homes Programme) has resulted in major improvements for tenants and has recommended the continuation of the programme (House of Commons, 2010). Following this, in April 2010 the then Communities Minister granted over £165 million to help local Councils pay for adaptations to support independent community living. This represents a 7 per cent rise in the main grant system for housing improvements, 'The Disabled Facilities Grant programme', from the previous year (see Figure 4).

To date, it is estimated that just one year's delay in providing an adaptation to an older person costs up to £4,000 in extra home care hours (Care and Repair England, 2010). Other findings related to cost-effectiveness are:

- Postponing entry into residential care by just one year through adapting people's homes saves £28,080 per person (Laing and Buisson, 2008).
- A fall at home that leads to a hip fracture costs the state £28,665 on average (£726 million a year in total). This is 4.5 times the average cost of a major housing adaptation and over 100 times the cost of fitting hand and grab rails to prevent falls (Heywood *et al.*, 2007 – see above for further discussion of falls prevention).
- Housing adaptations reduce the need for daily visits and reduce or remove costs of home care (savings range from £1,200 to £29,000 a year) (Heywood *et al.*, 2007).
- A hospital discharge service can speed up a patient's release from hospital. This creates savings of around £120 a day - the amount charged to a local authority when patients 'block' beds in hospital.
- The national evaluation of Partnerships for Older People Projects (2009) suggests that low intensity practical support services, such as handyperson schemes, had by far the highest impact on health-related quality of life of all the service types examined. This was recognised in the Housing Strategy for an Ageing Society and £33 million was subsequently made available by the former DCLG for the development and expansion of local handyperson services.

However, an emerging issue seems to be a declining local government contribution (possibly due to funding pressures and rapidly rising demand). Until 2008, local authorities were legally obliged to match the

Box 2: Case study of activity: Falls Prevention Teams in NHS Calderdale

Calderdale PCT was one of the first local trusts to create a specific falls prevention team. The team consists of four falls prevention workers and is led by a clinical specialist. The workers co-ordinate personalised falls prevention services for older people across health and social care. With the ultimate goal of preventing falls and reducing hospital admissions in this area, key activities are:

- Raising public awareness of falls and how to prevent them
- Case identification of older people at risk of falls (based on previous falls, medication use, diagnosis of stroke or Parkinson's disease, balance and physical ability measures)
- Detailed screening, case management and referral to appropriate services
- Provision of information and advice to older people (e.g. physical exercise, diet, footwear and environmental hazards)
- Provision of strength and balance improvement groups in local community settings and tailored exercise plans within older people's homes

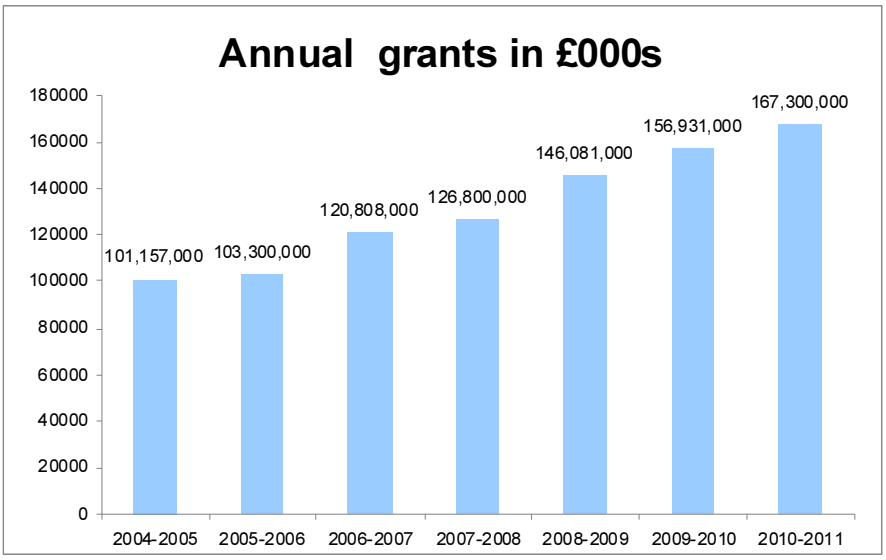
The falls prevention team initially received two years funding through Partnership for Older People's Projects (POPPs). The falls prevention work was part of an even wider integrated and multi-agency strategy for the area and was linked to the other key local POPPs provision, such as the home from hospital service, health and well-being of carers, handyperson service and neighbourhood projects.

In 2009 the POPPs work received a local government award and was highly commended for its impact and community involvement. The initiative has since been mainstreamed into local service provision through the Local Area Agreement. Although being led by the PCT, other organisations connected to the work include the local Council, local voluntary organisations, the carers project and Calderdale and Huddersfield NHS Foundation Trust and Mental Health Trust.

www.calderdale.nhs.uk/local-services/a-z-listing/falls-prevention-service

national government contribution on a 60:40 basis. Despite growing demand and increasing national government allocations, many local authorities have reduced their contribution to home improvement services. A survey conducted by Foundations – the national body for HIAs (Ramsey, 2010) - revealed that around 25 per cent of local authority Disability Facilities Grant budgets were already exhausted at least three months before they are due to end and 31 per cent were significantly overspent. They also found that over half of agencies are reporting an increase in waiting times for grants and 70 per cent are showing a rise in demand, linked to the changing demographics of an ageing population and increasing home ownership. As the older population continues to expand and funding becomes even more squeezed, finding ways of continuing to fund adequate housing adaptation and lower-level practical support will be crucial.

Figure 4: Local Authority Disabled Facilities Grants Allocations 2004-2011, (£000s)



www.communities.gov.uk/housing/supportandadaptations/housingadaptations/localauthoritydfgallocations/

Telecare and technology

There is growing exploration of the potential role of assistive technology (and in particular telecare) in preventative approaches for older people. Telecare is given specific coverage in the UK government's prevention package for older people (Department of Health, 2009c) as part of a broader government strategy for an ageing society (HM Government, 2009b). This commitment has been realised at service as well as policy level, with £80 million of grants made available to local authorities by the Department of Health in 2006.

The preventative potential of telecare appears to be in terms of secondary and tertiary prevention, linked to its capacity to enable people to self-manage long-term conditions. Telecare may also be appropriate in responding to a wide range of needs and conditions experienced by older people, such as diabetes, heart failure, chronic obstructive pulmonary disease, hypertension, depression and dementia. Thus, telecare monitoring systems may offer a safer living environment and reassurance to those with physical and mental health problems alike, as well as those with multiple and complex needs. Typical devices incorporated in telecare home systems include telecare units (speakers connected to call centres and linked to sensors within the home), big button telephones (modified for hearing impairment), personal alarms, epilepsy sensors, bed moisture sensors, fall/movement detectors, gas/CO_2 detectors, patient tracking systems and medication dispensers.

To date, evidence about the outcomes and effectiveness of assistive technologies and telecare in the UK is underdeveloped, providing a disincentive to further investment. However, evidence from early evaluations of local telecare interventions reveal some striking savings around emergency hospital and residential care admissions. Thus, Bowes *et al*'s (2006) evaluation in West Lothian reports cost savings of £85,837 as a result of reduced bed days. Evaluators link the reduction to the Rapid Response service, which was integrated with the West Lothian smart technology programme. Some examples from the US provide an even clearer picture of the potential benefits, both for patients and for the system as a whole (see Box 4).

Box 3: Assistive technology definitions

Assistive technology: an umbrella term for any device or system that allows an individual to perform a task they would otherwise be unable to do or increases the ease and safety with which the task can be performed (Royal Commission on Long-Term Care, 1999).

Telecare: use of electronic sensors and aids that make the home environment safer, enabling people to live at home, independently, for longer. Sensors automatically raise alarms through call centres, wardens or friends and family.

Telehealth: use of electronic sensors or equipment to monitor people's health in their own homes (e.g. blood pressure, weight, oxygen levels). Information can be monitored by clinicians without the individual leaving their home.

Telemedicine: use of sensors and electronic devices for communication to aid diagnosis and management of health (e.g. consultations between various health professionals and the patient via video conferencing)

(Department of Health, 2009c)

Box 4: Case study: US Veterans Health Administration – health buddy for chronic heart failure

Older people participating in the programme receive a Health Buddy appliance. This is a tabletop device with a display screen and simple four-button interface. Every day patients use the device at home to answer questions about how they feel, their medications and their symptoms. Through these daily sessions patients also learn about ways to better manage their condition. They receive health tips and reminders to take medication. Information is sent over a telephone line or Ethernet connection to a secure data centre where it is accessed by care managers to track progress and review alerts that act as early warning signs and show potentially serious changes in a patient's health condition.

After showing dramatic benefits in terms of outcomes for users and health services, health buddy devices are being tailored as part of self-care programmes for various conditions. In February 2010 funding for older veterans with chronic heart failure who reside in remote rural or other medically underserved areas in central California was extended. Outcomes to date include:

- $3,506 savings on average per patient
- Hospital admissions reduced by 66 per cent
- Bed days reduced by 71 per cent
- Emergency visits reduced by 40 per cent
- Significant improvement in patient vital signs and medication doses

(Coye, 2009)

UK evidence of telecare/health outcomes is rapidly growing. The main beneficial impacts of health and social care supported by these assistive technologies are thought to be:

- Increased choice, autonomy, control and independence.
- Improved quality of life.
- Maintenance of ability to remain at home.
- Reduction of burden placed on carers.
- Improved support for people with long-term health conditions.
- Reduced accidents and falls in the home. (Beech and Roberts, 2008)

The Whole Systems Demonstrator (WSD) programme aims to significantly expand the knowledge-base around telecare impacts. Launched by the Department of Health in May 2008, the two-year research project is the largest randomised controlled trial of telecare/health ever undertaken. As well as consolidating scientific research knowledge via the WSDAN database (see **http://kingsfundlibrary.co.uk/wsdan/**), the WSD findings (due in late 2010) are intended to provide new insights into the potential contribution of telecare in areas such as: cost and clinical effectiveness; patient and carer quality of life; and the everyday practices of health and social care professionals (Department of Health, 2009d).

A key consideration for local commissioners and service designers is the context of the service within which telecare products and devices are made available. Although these new technologies open up new possibilities for independent living, this can only be achieved where they are accessed alongside the right support services. Telecare is a highly personalised service, carefully tailored to the needs of individual users. Assessment, care co-ordination and ongoing review are essential to the effective delivery of telecare services. It is also essential to ensure that telecare is not used to substitute for the human contact that older people value so much, but to complement it.

Intermediate care

Of all the policy initiatives described in this paper, intermediate care has probably received the most national attention and the most new funding. In July 2000 The NHS Plan announced an extra £900 million to be invested over four years in intermediate care services such as rapid response teams, intensive rehabilitation services, recuperation facilities, one-stop shops and integrated home care teams (Department of Health, 2000). In January 2001 government guidance provided more detail about how intermediate care would operate (Department of Health, 2001a). According to circular 2001/001, intermediate care should be regarded as describing services that meet all the following criteria (Department of Health, 2001a, p.6):

- Are targeted at people who would otherwise face unnecessarily prolonged hospital stays or inappropriate admission to acute inpatient care, long term residential care, or continuing NHS inpatient care.
- Are provided on the basis of a comprehensive assessment, resulting in a structured individual care plan that involves active therapy, treatment or opportunity for recovery.
- Have a planned outcome of maximising independence and typically enabling patients/users to resume living at home.
- Are time-limited, normally no longer than 6 weeks and frequently as little as 1-2 weeks or less.
- Involve cross-professional working, with a single assessment framework, single professional records and shared protocols.

While intermediate care has the clear potential to break out of the Audit Commission's 'vicious circle' (see Figures 1 and Box 5), the evidence base has been more mixed in practice. In particular, two key national evaluations (see, for example, Barton *et al.*, 2005; Godfrey *et al.*, 2005) suggest that:

- A key strength of intermediate care may be its ability to act as a 'bridge' - between locations (home/hospital and vice versa), between individual states (illness to recovery or management of chronic illness) and between sectors (acute, primary, social care and housing).
- There is significant diversity locally in terms of how intermediate care is conceived and implemented, with a series of different service models, cultures and approaches. Coupled with delays and tensions during implementation, this makes it difficult to generalise about 'intermediate care' per se.
- There is a need to move beyond 'services' alone when developing intermediate care to concentrate on the whole health and social care system (to make sure that fragmentation and dislocation in the patient experience is minimised as older people move between multiple service providers).
- Within intermediate care, provision has tended to concentrate on supported discharge (rehabilitation in residential settings), with fewer services addressing admission avoidance (preventative in non-residential settings).
- Despite many positives, inter-agency barriers remain – with a risk that

Box 5: The potential of intermediate care

"You're 90, live alone and have a fall. Your hip cracks, you're taken to hospital. While you're there you get a chest infection, then pneumonia. The pneumonia is brought under control but you are still weak, and the broken hip has exacerbated mobility problems caused by arthritis. Acute beds are under pressure, so you are assessed and found a bed in a residential home. You never go home again.

Intermediate care should rewrite this story. Instead of being taken to hospital, you could perhaps expect to receive an intensive 'hospital at home' service, followed by a multi-disciplinary planned rehabilitation programme. If you needed to be admitted to an acute bed, you could be discharged to a residential intermediate care facility, perhaps based in a nursing home, for a six-week programme of physiotherapy, occupational therapy, medical and nursing care and social work support. Either way, at least in theory, you end up back in your own home instead of living out your days in an institution."

(Rickford, 2001, p.18)

intermediate care becomes just as 'blocked' as the acute beds it was meant to free up (with people discharged inappropriately from hospital and subsequently unable to leave intermediate care in a timely fashion).

As with other interventions in this policy paper, there also seems to be a tendency to focus on the physical and practical aspects of rehabilitation rather than broader social and emotional aspects.

In spite of all this, there is both qualitative and quantitative evidence to suggest that intermediate care can make a significant difference to older people's lives – albeit that research emphasises the need to be much clearer about the groups of older people with most scope to benefit from such interventions.

Re-ablement

Over recent years, a number of local authorities have sought to prevent deterioration in the health needs of older service users and to help them to regain as much independence as possible by remodelling traditional 'home care' services on a 're-ablement' basis. Rather than providing services on an ongoing basis, many Councils have tried to find ways of providing more intensive and more rehabilitative services for a short period of time, with a view to reducing the package of care as skills and confidence increase (with clear potential to either link or overlap with intermediate care services – see above).

From national monitoring and development work (as well as some independent research), it seems as though there may be over 120 local authorities, out of 150 councils with social services responsibilities nationally either with or in the process of setting up/extending a re-ablement scheme (Pilkington, 2009). Above all, re-ablement aims to maximise independence and quality of life in older age, whilst at the same time reducing costs by aiming for the lowest appropriate level of care for individuals (see Table 4).

Although definitions vary, re-ablement services often:

- Encourage individuals 'to do' rather than 'doing it for' them
- Focus on practical outcomes within a specified timeframe
- Involve a continuous rather than one-off assessment of need

To date, work on re-ablement has shown promising results in a small number of pilot areas (see, for example, Pilkington, 2008, 2009). One review suggests that a process of re-ablement was able to reduce the need for home care by some 28% (Kent *et al.*, 2000). As the reviewers note, however, success has been *"so spectacular that it caused the research team some worries"* (Kent *et al.*, 2000, p.23). Later research has also continued to find apparently very high rates of success, but qualifies this more in terms of a timing issue – *"the possibility that re-ablement service users fall into two broad groups: those who gain immediate but relatively short term (around three months) benefit from re-ablement; and, those for whom the impact is more sustained, possibly delaying their need for homecare by a year or more"* (Newbronner *et al.*, 2007, p.iv). This introduces more of a dynamic perspective, where the effect of the intervention may be mostly about delaying the need for ongoing support, rather than preventing or circumventing such needs entirely.

Another reason for being cautious about effects is that CSED (2009) note that a significant proportion of people do not complete the re-ablement phase, perhaps one quarter of those starting such an intervention. Moreover, whilst the benefits described in studies are substantial and provide a case for wider use of such services, there has been little or no corresponding data on the costs of providing the re-ablement service until recently (see McLeod *et al.*, 2009; Arksey *et al.*, forthcoming for recent exceptions). Overall, therefore, re-ablement appears a positive model – but evidence about the potential longer-term implications is still emerging. In particular, it seems likely that the potential benefits of re-ablement are influenced by factors such as (personal communication, Professor Caroline Glendinning):

- How selective reablement services are – especially whether they take only hospital discharge cases or all referrals for home care. Evidence suggests the impact of re-ablement may be 'diluted' as services move towards an 'intake' model.
- Pilot projects and volunteer re-ablement staff. Motivation to adopt a different way of working is greater in pilot projects and among staff who have volunteered to retrain for this new service. Managers report considerable difficulty in retraining staff who have been given no option.
- Resources – good re-ablement services need to be flexible and able to spend longer with people if necessary. Better resourced services should therefore achieve better outcomes. Re-ablement services will also be more effective if staff have access to a wide range of specialist skills (including, for example, skills in working with people with dementia and other mental health/cognitive problems).
- The nature of long-term home care services – anecdotal evidence suggests that these are still commissioned in traditional ways to 'do for' people so that skills and confidence acquired during re-ablement can be quickly lost.

Table 4: The concept of re-ablement (CSIP, 2007)

Prevention	Rehabilitation	Re-ablement
Services for people with poor physical or mental health to help them avoid unplanned or unnecessary admissions to hospital or residential settings. Can include short-term emergency interventions as well as longer term low-level support	Services for people with poor physical or mental health to help them get better	Services for people with poor physical or mental health to help them accommodate their illness by learning or re-learning the skills necessary for daily living

Box 6: Norfolk County Council re-ablement scheme

A home care re-ablement service, Norfolk First Support, was remodelled by Norfolk County Council Adult Social Services and commenced in February 2008. To date the scheme is seen as successful in terms of helping people to reach and maximise their potential, supporting the assessment process and reducing hospital delays in transfers of care. The key aspects of Norfolk First Support's work include:

- A six week assessment and re-ablement service.
- An intensive support package put in place with an aim to maximise independence.
- Throughout the 6 weeks levels of independence are carefully monitored by Home Support Workers and Managers.
- The service is currently receiving referrals from acute hospitals, community hospitals and transitional beds.

Norfolk First Support has trained over 250 staff who work in the service in assessment and re-ablement skills, as well as hospital and other health and social care managers. The service also works very closely with local OT teams. Significant preventative outcomes have been associated with the work of the service:·

- Around 400 service users per annum receive support from Norfolk First Support.
- Care hours were reduced for those going on to longer term care by 90 per cent.
- 23% of service users ceased the service with no further requirement for support.
- There are large reductions in the average weekly hours of support required by service users. For example, across the whole scheme the average number of care package hours at the beginning of the service is 9, compared to 6 for those who have completed the service.

Partnership working between health and social care

Over a number of years, UK policy makers have often encouraged greater collaboration between health and social care (with an increasing emphasis on joint working with broader, more universal services as well). By working more closely together, it is argued, health and social care partners could invest their respective resources more effectively, pool their information, and provide an earlier and more holistic response to need – which might prove successful in supporting people for longer at home and prevent or delay admission to costly acute or residential care. As the brief review below suggests, however, it is important to stress that this remains almost entirely a matter of faith at present – while intuitively this argument has some merit, there remains much to be done to understand whether this can actually be achieved in practice. To date, some of the benefits that have materialised from health and social care partnerships (where there have been demonstrable benefits at all) are also to do with the substitution of cheaper forms of care (that is, with a possible impact around secondary and tertiary forms of prevention, but not around primary prevention).

While working in partnership seems common sense, our knowledge of what works remains limited by a number of key weaknesses in the existing literature, in current approaches to research/evaluation and in current UK policy and practice (see, for example, Audit Commission, 2005; Cameron and Lart, 2003; Dowling *et al.*, 2004; Glasby *et al.*, 2006; Glasby and Dickinson, 2008; Powell and Dowling, 2006). In particular, most studies focus on issues of *process* (how well are we working together?) rather than on *outcomes* (does it make any difference for people who use services?). In addition, many policy makers assume that integration and inter-agency collaboration are inevitably a 'good thing' (that lead to better services and hence to better outcomes) and so most research focuses on the potential positives of integration, without necessarily considering some of the negatives. Moreover, most studies only consider a fairly narrow range of quantitative indicators and most research finds it hard to identify the specific impact of the integration or collaboration (as opposed to the many other services and changes underway at the same time). This is particularly the case in a policy context that has sometimes seemed very hyper-active – with multiple changes in a short space of time in the same geographical areas. Despite the ambiguity of the current evidence base, there are national and international examples of collaborative and/or integrated approaches which have led to real and significant benefits (see, for example, Audit Commission, 2002; Barton *et al.*, 2005; Ham, 2009; Ham *et al.*, 2008; Johri *et al.*, 2003; Kodner, 2006 for further illustrations). Thus, it may not be that partnership working *cannot* lead to better outcomes – but more that current research has struggled to demonstrate this in practice and/or that it has sometimes proved difficult to implement new ways of working. Although it remains unproven, the assumption that more joined-up working could and should lead to improved outcomes and/or a better use of scarce resources seems to have some merit – although there will need to be practical ways of extracting potential cost savings in practice (and this may well involve significant disinvestment in some current services). In particular, two reviews of the international evidence have

highlighted a range of potential benefits as well as some of the practical elements of service delivery believed to be most helpful in supporting more integrated care (albeit in potentially very different contexts). In Kodner's (2006) review of North American models, these are:

- Umbrella organisational structures to guide integration at strategic, managerial and service delivery levels.
- Case managed, multi-disciplinary team care, with a single point of contact and co-ordinated care packages.
- Organised provider networks, with standardised referral procedures, service agreements, joint training and shared information systems.
- Financial incentives to promote prevention, rehabilitation and the downward substitution of services.

Similarly, Johri *et al*'s (2003) review of international experiments in integrated care for older people identified the key features as:

- Case management, geriatric assessment and a multi-disciplinary team.
- A single entry point.
- Financial levers to promote downward substitution of care.

In the UK, a high profile example of the potential benefits of integration comes from Torbay Care Trust in evidence supplied as part of its membership of a Beacon sites programme to test out learning from ongoing links with Kaiser Permanente in the US (see Ham, 2010 for all data in this paragraph, supported by unpublished CQC data – see also Box 7). In Torbay, the creation of the Care Trust and the development of more integrated approaches seem to have led to a significant impact on the use of hospitals, with data suggesting that Torbay has the lowest use of hospital bed days in the region and the best performance in terms of lengths of stay.

Personalisation

With the advent of personal budgets and the continued expansion of direct payments, there remain high hopes that more individualised forms of funding could lead to better outcomes for service users, meeting needs more fully and (perhaps) enabling older people to remain living independently for longer. By fully tailoring services to individual needs and circumstances, it is argued, there is scope to provide more innovative, higher quality and better organised support – potentially preventing or delaying future crises in people's health or social situations. As with health and social care partnerships above, it is important to stress that this largely remains conjecture at present – with some promising early pilot results (often focusing on younger disabled people), but little evidence as yet around the potential impact for older people (where current care packages tend to be much smaller and very focused on basic physical needs, with much less scope for innovation). Whether the development of more a equitable allocation of resources and the passage of new legislation (the Equalities Act) can challenge this traditional state of affairs so that older people are able to receive support similar to that of younger disabled people remains to be seen. Developing a preventative approach is also difficult given that current social care funds (and hence current personal budgets) are so heavily targeted on people with the highest needs.

Although the direct evidence for a preventative impact is limited, personal budgets do seem to have had a significant impact on people's quality of life (despite being initially very counter-cultural and in spite of a series of practical barriers – see, for example, Poll *et al*., 2006; Hatton *et al*., 2008; Glendinning *et al*., 2008). Thus, initial work (2003-2005) focused on 60 people with learning difficulties with the most complex needs in 6 local authorities, with impressive outcomes (Poll *et al*., 2006):

- Improved satisfaction levels for the people who use services (e.g. satisfaction with support went from 48% to 100%).
- Improved use of resources (e.g. in addition to improved outcomes, the pilots used less money – in the six pilots, the lowest reduction in cost was 12%).
- Increasing use of community and personalised support (e.g. use of residential care reduced by 100%).

At the same time, personal budgets appeared to provide a particularly vigorous means of empowering people who use social care, with many people able to achieve the changes that they wanted to achieve in their lives over the course of one year (see Table 5). Furthermore, the use of personal budgets appears to accelerate a shift in the kinds of support people use, away from more traditional or institutional support solutions and towards support that is personalised and community-based (see Table 6).

Box 7: Torbay Care Trust

As Ham (2010) illustrates, Torbay has demonstrated high performance in a range of areas:

- After adjusting for deprivation, the standardised admission ratio for emergency admissions for the 65 and over population is 87.7, the third lowest in the south west.
- Use of emergency beds for the 65 and over population is 2025/1000 population in Torbay compared with an average of 2778/1000 population in the south west as a whole.
- For the population aged 85 and over, Torbay uses only 47% of emergency bed days for people experiencing two or more admissions for its benchmark group.
- Torbay has the lowest rate of emergency bed day use for older people with two or more admissions and the second lowest rate of emergency admissions for older people with two or more admissions in the south west.
- According to the Better Care, Better Value indicators produced by the NHS Institute, the Foundation Trust ranked fourth in England for use of beds and fifth for day surgery rates at quarter 3 in 2008/09.
- From a commissioner perspective, Torbay had the lowest use of beds per 1000 population in 9 out of 19 diagnostic areas.
- The Care Trust has reduced the average number of daily occupied beds it uses in both the district general hospital and the community hospitals from 750 in 1998/99 to 528 in 2008/09.
- Residential care makes up the majority of adult social care spending, but Torbay has the second lowest proportion of people aged 65 and over discharged to residential homes in the south west.
- Torbay is second only to South Gloucestershire in the proportion of expenditure on direct payments in the region.

Table 5: Changes made as a result of personal budgets

Desired change	% Achieved
Where I live	76%
Who I live with	81%
What I do with my time	69%
Who supports me	89%

Poll *et al* (2006)

Table 6: Support purchased using a personal budget

Type of support	Before	After
Support at home	20	22
Employing personal assistants	8	22
Using day centre	12	11
Hours of day centre	4.5 days	3.5 days
Using family support	21	21
Using community support	8	15

Poll *et al* (2006)

In 2008, a further study (Hatton *et al*., 2008) demonstrated similar benefits to the earlier report (see Table 7), while a national evaluation of Department of Health pilots identified a series of practical challenges to overcome, but ultimately emphasised the positive impact of this way of working (Glendinning *et al*., 2008). While early data focused solely on people with learning difficulties, these more recent studies included a broader range of user groups (although with a series of ongoing questions about whether personal budgets can be made to work as well in older people's services as they currently seem to in services for younger disabled people). In particular, the national evaluation suggested that mental health service users report significantly higher quality of life; physically disabled adults report receiving higher quality care and were more satisfied with the help they received; and people with learning disabilities were more likely to feel they had control over their daily lives. However, older people reported lower psychological well-being, perhaps because they felt the processes of planning and managing their own support were burdens. Overall, if personalisation is to transform older people's services, then additional work and focus may be required to overcome something of a culture of low expectations in this user group setting, with staff and the broader system sometimes seeming to accept lower standards for older people's services than in equivalent support for younger disabled people.

Conclusion

In summary, health and social care services are increasingly seeking to develop a more preventative approach for older people – without necessarily having sufficient evidence to know what will really make a difference. While there is growing recognition that only a more preventative agenda will be sufficient to respond to current and future pressures, there is much less clarity about how to do this in practice. Against this background, this paper has set out ten potentially 'high impact changes', drawing on emerging national and international evidence to identify approaches which currently seem most promising. However, the evidence remains under-developed and proving you have prevented something (that would have happened without your intervention) is complex in research terms. As a result, it may be that the interventions reviewed here evolve over time, or that other models emerge as even more promising in future. In practice, this might mean that we have to stop looking for clear evidence of 'what works' before we try anything new, and start looking for evidence of 'what doesn't work' – trying something different and learning by doing and reflecting. In many ways, this represents a form of 'practice-based evidence' rather than more traditional notions of 'evidence-based practice' – and future policy, practice and research might usefully explore such a paradigm shift in more detail.

Table 7: Outcome results for 200 people using personal budgets

	Improved	Same	Worse
General health and well-being	47%	48%	5%
Spending time with people you like	55%	42%	3%
Quality of life	76%	23%	1%
Taking part in community life	64%	34%	2%
Choice and control	72%	27%	1%
Feeling safe and secure at home	29%	70%	1%
Personal dignity	59%	41%	0%
Economic well-being	36%	59%	5%

Hatton *et al* (2008)

Appendix 1:

Interlinks National Expert Panel
We are very grateful to members of the Interlinks National Expert Panel for their comments on an initial draft of this paper. The NEP includes:

- Professor Julien Forder, University of Kent
- Professor Caroline Glendinning, Social Policy Research Unit
- Professor Jill Manthorpe, King's College London
- Ed Harding, Integrated Care Network
- Lucinda Beesley, Tribal Consulting
- Deborah Sturdy, Department of Health
- John Young, Consultant Geriatrician
- Amanda Edwards, Social Care Institute for Excellence
- Clive Newton, Age UK

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