THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

CPEC
CARE POLICY AND EVALUATION CENTRE
Research at LSE

The development of a local framework for evaluating prevention effects in England

Joanna Marczak, Gerald Wistow and Jose-Luis Fernandez

London School of Economics and Political Science

CPEC Working Paper 1

June 2019

ACKNOWLEDGMENTS

The findings presented in this report would not have been possible without the help of the respondents in the local authorities. We are grateful that time was readily made available for the interviews when informants were busy managing the demands of their daily workloads.

The research is funded by NIHR School for Social Care Research. However, any views expressed in the report are those of the research team alone. Errors and omissions remain the responsibility of the authors.

FUNDER

NIHR School for Social Care Research

CONTENTS

1	SUMMARY	1
	Overview of literature	1
	Challenges involved in developing an evaluation framework	1
	Methodological approaches to evaluating prevention	2
	Evidence from local practice	2
2	KEY DRIVERS BEHIND PROMOTING PREVENTATIVE SERVICES	3
3	THE AIMS AND METHODOLOGY OF THE PROJECT	4
4	OVERVIEW OF RESEARCH EVIDENCE ON PREVENTION FROM ENGLAND	5
5	CHALLENGES INVOLVED IN EVALUATING PREVENTION EFFECTS	7
	Definition of prevention	8
	Social care outcomes are compleX	9
	Controlling for needs and non-service factors	10
	Long-term effects and costs	11
	Integrated approach	11
	Experimental set-ups	12
6	METHODOLOGICAL ANSWERS TO THE PREVENTION EVALUATION CHALLENGES	12
	Difference-in-difference models	13
	Selecting control groups	14
	Production relations and regression methods	14
	Local authorities' understanding of prevention: definition, goals and policies	16

7 CURRENT PRACTICES IN ENGLAND 16

Preventative services 17

Linking prevention to commissioning 18

Potential for prevention 18

Integration with other agencies 19

Piloting new services 21

Collecting regular evidence about preventative services 21

8 ASSESSING PREVENTATIVE EFFECTS OF SERVICES 21

Measuring outcomes 22

Analytical capabilities and data analysis 22

Data sharing within LAs and with external agencies 23

A note on understanding of data collection, analysis and outputs produced 23

9 DIRECTIONS, CONCLUSIONS AND RECOMMENDATIONS 24

10 REFERENCES 26

APPENDIX 1: SURVEYED LOCAL AUTHORITIES AND INFORMANTS' CHARACTERISTICS 29

APPENDIX 2: INTERVIEW SCHEDULE FOR SEMI-STRUCTURED INTERVIEWS 30

I SUMMARY

This report summarises the results of a NIHR School for Social Care Research (SSCR)-funded adding value project on the development and testing of a local framework for evaluating prevention effects in England. We conducted a rapid literature review on cost-effectiveness of prevention in social care, supplemented by review of challenges involved in developing a prevention evaluation framework and existing methodological approaches to address these challenges. We also explored current practice with regards to evaluation of preventative services in England based on semi-structured interviews with key informants in 6 local authorities (LAs). An end-of-project workshop was held with participating LAs to share and discuss the findings. Below are the key points of the project.

OVERVIEW OF LITERATURE

- The evidence base on effectiveness and cost-effectiveness of preventative services is limited, and insufficient information exists to inform local decisions about the best ways to invest the scarce financial resources in prevention.
- The existing evidence in England is concentrated on reablement, telecare/telehealth, falls prevention and various forms of community interventions aimed at improving wellbeing and preventing social isolation.

CHALLENGES INVOLVED IN DEVELOPING AN EVALUATION FRAMEWORK

- It is difficult to disentangle the potentially beneficial effect of care services on costs and outcomes from the impact of need-related factors.
- The data required to measure what would have happened in the absence of preventative services are difficult to obtain.
- The impact of some interventions is likely to take considerable time to emerge, which means that, to appraise them fully, data need to be collected at intervals over lengthy periods.
- Collaboration across sectors is particularly important in evaluating prevention services, since the benefits may accrue to a different department from the one which funded the intervention, however measuring prevention effects across departments is demanding.

METHODOLOGICAL APPROACHES TO EVALUATING PREVENTION

- Experimental set-ups can be applied to pilot new interventions to investigate effectiveness and cost-effectiveness of services for individuals taking up an intervention compared with those not taking it up. They allow for assessing prevention effects over time and for disentangling the effects of intervention from other, non-service factors.
- Difference-in-difference set-ups compare an intervention and a comparison group (first difference) before and after the intervention (second difference). They allow for disentangling the effect of policy changes through time from the effect of the intervention for new interventions implemented in stages (e.g. geographical areas).
- The production of welfare framework and regression methods can be used with mainstream services to identify the additional contribution of interventions to the final outcome controlling for non-service factors.

EVIDENCE FROM LOCAL PRACTICE

- Different conceptualisations of prevention and contexts for evaluating preventative interventions in social care translate into heterogeneity of approaches to reported data collection and analyses and have implications for developing an evaluation framework as different preventative approaches will require different evaluation methods.
- Collaboration between Adult Social Care (ASC) and public health has improved since the latter became responsibility of the local government, however joint work with other departments, in particular the NHS, is stalled by cultural differences as well as technical problems.
- Unexploited opportunities exist to employ experimental set-ups and control groups when piloting new interventions to test assumptions in practice and to amend the service model before wider implementation.
- There is an untapped potential to exploit local capabilities, collected data and management systems in order to develop more robust evaluations of mainstream services.
- The findings confirm a significant interest in LAs to develop a preventions evaluation framework to empower LAs to evaluate their own services, and thus to make better informed, locally grounded judgements about how to invest their limited resources optimally

2 KEY DRIVERS BEHIND PROMOTING PREVENTATIVE SERVICES

Population ageing and the predicted increase in the frail elderly with long-term care needs requires that health and social care services plan ahead for the increase in spending on services (Hayashi et al., 2009). According to the Department of Health (2012) estimates, the number of people in England with multiple long-term conditions will raise from 1.9 to 2.9 million between 2008 and 2018. The expectations regarding the quality of care also continue to grow and individuals are likely to expect access to high quality of care (Knapp, 2013). Simultaneously, private and public financial resources are increasingly shrinking, particularly during the economic recession the public spending is under pressure and current social care system arrangements are commonly viewed as unsustainable if left unchanged (Humphries, 2010, Curry, 2006). The escalation in needs, the changes in expectations and national economic difficulties generate questions about how to use available resources in the most cost-effective manner (Knapp, 2013).

Prevention is considered to be an essential part of future social care provisions as the underlying assumption is that preventive services will promote individuals' well-being, quality of life, health and independence which, in the long term, will result in a decrease in demand for high-cost services which will overall lead to reduced use of resources and lower the costs (Curry, 2006). There have been numerous policy references to the strategic importance of investing in prevention over the last decade. The White Paper *Our Health, Our Care, Our Say* placed preventative approaches at the core of the reform agenda in social care with an aim to reduce cost pressures on acute care, promote efficiency, and improve co-ordination of services from the perspective of patients and carers (HM Government, 2006).

The *Putting People First* document further reinforced the importance of prevention and early intervention in the transformation of adult social care, as it highlighted the principles of maximizing individual choice and a system focussed on prevention, early intervention, enablement, and high quality personally tailored services (HM Government, 2007).

Think Local Act Personal, a national partnership of central and local government, the NHS, providers and service users and carers established in 2011, built on the achievements of Putting People First and in its partnership agreement highlighted personalisation and community as the building blocks for social care reform (Think Local Act Personal, 2011). The partnership states on its website that achieving a shift towards prevention and early intervention is a 'central objective of social care transformation' (based on www.thinklocalactpersonal.org.uk, accessed on 04/11/2015).

The Care Act 2014 lists 'promoting individual well-being' and 'preventing needs for care and support' as the first two (of seven) general responsibilities of local authorities. The Act notes that 'at every interaction with a person, a local authority should consider whether or how the person's needs could be reduced or other needs could be delayed from arising' (Department of Health, 2014).

Despite prevention being firmly established among policy makers and reflected in government guidance there is less clarity on how to translate prevention agenda into local practices. The evidence base behind investment in preventative services is less than compelling and conducting local evaluations of the myriad of preventative services remains challenging.

3 THE AIMS AND METHODOLOGY OF THE PROJECT

Building on recent Social Care Evidence in Practice (SCEiP) project which highlighted LAs' interest to utilise the full potential for preventative interventions, this study aims to contribute to the development of a prevention evaluation framework. SCEiP prompted the development of a shared definition of prevention and further work to identify what is already in place in LAs in terms of data collection, methods of analyses and analytical capabilities within local authorities to measure the effectiveness and cost-effectiveness of preventative services.

The particular objectives of this project are to lay the foundations of an evaluation framework for assessing the preventative effects of social care services by comparing the information needs of such an evaluative model against existing local information and management systems. The project also aims to provide intelligence to develop key areas of priority for practice-focused research in the area of prevention.

To achieve these goals we conducted a rapid literature review to explore evidence base around prevention; we examined the challenges involved in evaluating preventative interventions; and we reviewed methods that could address these challenges. Furthermore, we carried out qualitative interviews and reviewed policy documents related to prevention in selected LAs to gain a deeper insight into current prevention practices in England. Finally, an end-of-project workshop was held with participating LAs to share and discuss the findings.

Semi-structured, in-depth interviews were conducted with twelve key informants in six local authorities (see Appendix 1 for informants' characteristics). We collected information about local understanding of, and goals associated with, prevention; the areas local authorities concentrate their prevention efforts on; the outcomes they aim to achieve; local understanding of the future potential for prevention; policies on prevention and coordination of efforts between social care and other services in the design and assessment of preventative services.

Data were also gathered on the nature of indicators collected about preventative services (e.g. service use, needs, outcomes) and processes for data collection; analytical capabilities within local authorities; methods of analyses of collected data and outputs produced (see Appendix 2 for interview guide).

All interviews except for one were recorded, transcribed verbatim and material was entered into qualitative data management software: NVivo 10 (QSR International Pty Ltd., 2014).

In analysing the content of the interviews thematic analysis was employed to systematically organise data by focusing on identification and reporting of patterns and themes across the whole dataset and collating passages relevant to each theme.

4 OVERVIEW OF RESEARCH EVIDENCE ON PREVENTION FROM ENGLAND

Notwithstanding the potential of improving the social care system through investment in preventative interventions, there is insufficient evidence about how to achieve this objective. As Miller et al. (2013) noted:

> ….despite the aim of prevention being firmly established amongst policy makers and reflected in government guidance, the formal evidence base around prevention remains under-developed. This makes it difficult for Adult Social Services to know how best to invest their resources, and how to most effectively work with health, housing and other statutory partners.

The shortage of evidence may translate into local decision makers minimising the benefits of preventative interventions which may result in insufficient investment in prevention, particularly in the current financial climate. The evidence base is nonetheless slowly developing and some qualitative and quantitative evaluations have been carried out in England in recent years.

The existing evidence is concentrated on various forms of community interventions to improve wellbeing and prevent social isolation (Coulton et al., 2015, Cook et al., 2013, Windle et al., 2011, Haslam et al., 2014, Skingley et al., 2016, Lawlor, 2014), the evidence exists in the areas of reablement (see, for example, Glendinning et al., 2010, Francis et al., 2011) telecare/telehealth (Steventon and Bardsley, 2012, Henderson et al., 2014, Hirani et al., 2014) and falls prevention (Shaw, 2003).

There is some evidence that various preventative services can improve individual, physical wellbeing as well as community wellbeing. The Partnership for Older People Projects (POPP) looked at the capacity of preventative interventions to improve older people's and their carers' wellbeing. Two-thirds out of 146 projects were aimed at decreasing social isolation and promoting healthy living and one third at supporting early hospital discharge and/or avoiding hospital admissions. The scope of interventions to improve wellbeing varied from exercise classes (to support physical wellbeing) to crime prevention interventions (promoting community wellbeing).

The evaluation found that staff involved in the project felt that quality of life and wellbeing of sampled older people improved. Nonetheless, the authors point out to the difficulties in assessing the impact of interventions on outcomes since the health-related quality of life among people in the POPP sample was lower than for the 'normal population' already at the onset of the project because the sample consisted of older and frail people who were likely to experience higher levels of deterioration in wellbeing. The project also evaluated cost-effectiveness and found that every £1 spent on POPP interventions led to £1.20 savings on hospital emergency bed day (Windle et al., 2009).

Windle et al. (2011) reviewed a number of interventions aimed at preventing loneliness and social isolation and noted that befriending and community navigator services were associated with reported reduction in loneliness and social isolation, while there is good evidence that befriending can also help reduce depression and can be cost-effective. However the review also highlighted that 'the wide variety of interventions and their different outcome measures make it difficult to be certain what works for whom'.

A systematic review by Dickens et al. (2011) of 32 studies that assessed interventions which targeted social

isolation in older people similarly pointed to substantial heterogeneity in the interventions and the quality of studies. The review noted that across social, mental and physical health, 79% of group-based interventions, and 55% of one-to-one interventions reported at least one improved outcome.

Windle at al. (2011) pointed to the lack of economic analysis into cost-effectiveness of programmes to prevent social isolation even when there is evidence on effectiveness of services.

Knapp et al. (2010) used decision modelling to demonstrate the economic impact of befriending interventions, time banks and community navigators, compared with what might have happened in the absence of such initiatives. It was estimated that the value of economic consequences of participation in a time bank was more than £1,300 while the average cost was less than £450 per year. Similarly, the economic benefits from community navigators were estimated at £900 at the cost of around £480.

Glendinning's (2010) study in five English local authorities found home care reablement to be cost-effective compared with conventional homecare in relation to health-related quality of life outcomes but less cost-effective in relation to social care outcomes [measured at nine to 12 months follow up].

Francis et al. (2011) in a research briefing about cost-effectiveness of reablement concluded that although there is evidence that the services improve outcome and are cost-effective, the volume of research is limited, and could be improved by using randomised design over 12 months or longer, with outcomes linked more clearly to well-being scores. Moreover, the authors noted that controlling for users' needs is problematic since there is no established threshold for admission to reablement services. Users are matched with control group by, for example, their age and care hours needed at the beginning of the services however individuals' functional abilities may vary at the entry which may impact benefits from reablement.

The Whole System Demonstrators programme using randomised control trial found that telehealth was associated with 20% decrease in emergency hospital admissions and a 45 percent reduction in mortality rates (Department of Health, 2011). However, there was less evidence that the interventions reduced costs as although overall costs of hospital care for the intervention group were £188 lower compared to the control group the difference was not statistically significant (Steventon and Bardsley, 2012).

In Henderson at al. (2014) study, based on pragmatic cluster-randomised controlled trial with nested economic evaluation, second-generation telecare[1] was not cost-effective addition to usual care.

Hirani at al. (2014) found that telecare may limit or ameliorate decline in users' mental Health Related Quality of Life (HRQoL) and depressive symptoms over a 12-month period, however the effect was small.

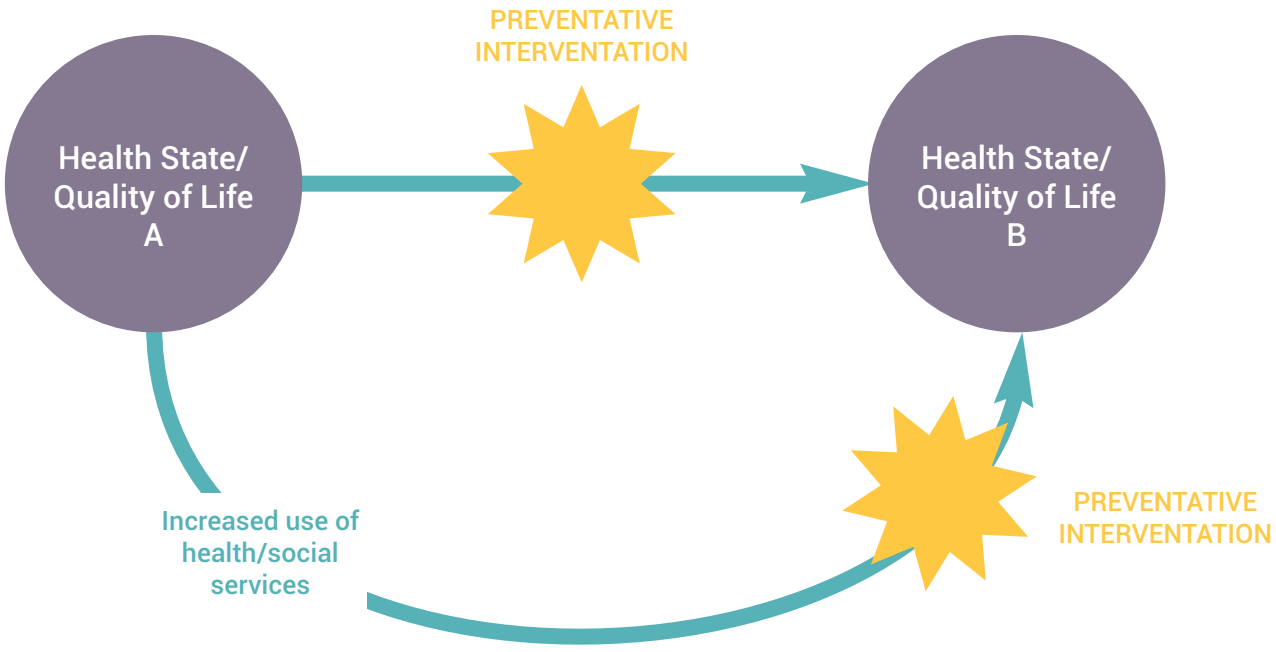
Shaw et al. (2003) study illustrated that multifactorial intervention was not effective in preventing falls, however, more recent international evidence demonstrated effectiveness and cost-effectiveness of numerous interventions to prevent falls (Keall et al., 2015, Farag et al., 2015).

1 Second Generation Telecare Refers to improved equipment that includes sensors such as smoke detectors and overflow detectors. It includes simultaneous sensors that can monitor home, vital signs, physiological measures and lifestyle.

5 CHALLENGES INVOLVED IN EVALUATING PREVENTION EFFECTS

The limited evidence base around prevention partly results from challenges involved in evaluating cost-effectiveness of preventative services. To improve effectiveness of social care system through preventative interventions, the key factor is to understand what services work for whom and how to target the resources at the appropriate moment to prevent the deteriorations in conditions and to prevent higher use of resources in the acute care (see Figure 1).

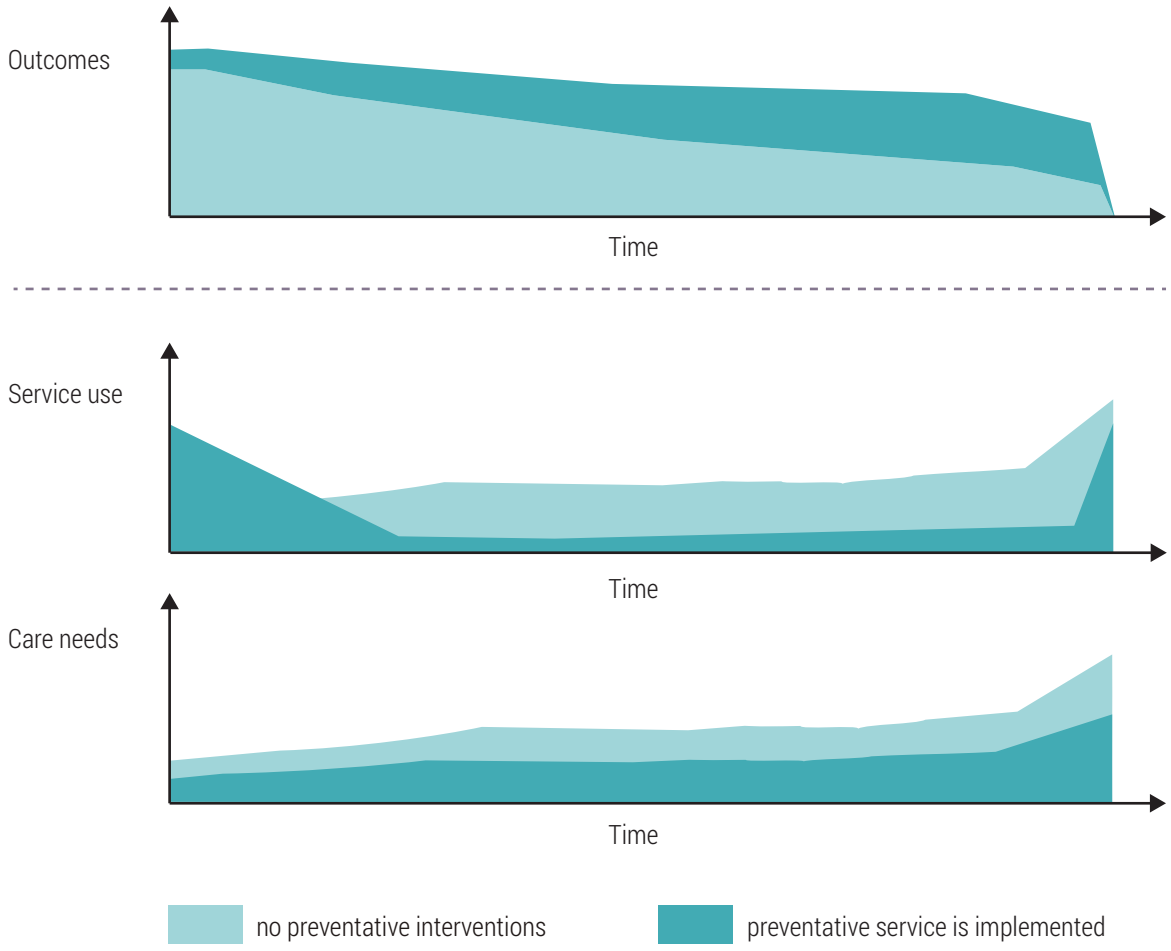
FIGURE 1: PREVENTION OUTCOMES



'Assessing effectiveness and cost-effectiveness in prevention can be challenging because of the lack of shared understanding of what prevention is, but also due to the use of various interventions simultaneously, the multidimensionality of outcomes involved, long time periods required to assess outcomes and eventual savings from preventative interventions and because the data required to measure what would have happened in the absence of preventative services are difficult to obtain (Miller and Allen, 2013, Knapp, 2013). Illustrating causality between the preventative interventions and outcomes generates difficulties in cost-effectiveness analysis, particularly over time given that a range of factors and practices can interact simultaneously to produce an outcome (Miller and Allen, 2013, Curry, 2006, Lombard, 2013).

Figure 2 illustrates some of the challenges involved in assessing preventative services based on fictitious data. Plate one illustrates changes in the quality of life over time in the absence of preventative interventions and when a preventative service is implemented. Plates two and three demonstrate service use in social care and other systems over time with and without preventative interventions implemented. At the onset of the preventative intervention the service input in social care is highest (plate two) while the improvement in the quality of life is relatively small (plate one). The actual effectiveness and cost-effectiveness can only be observed over time when the contribution of the intervention to improved quality of life and reduced service use in different systems become more apparent (plate three).

FIGURE 2: THE PREVENTION EVALUATION CHALLENGE



Source: Fernandez (2015) Presentation to South West ADASS regional group.

DEFINITION OF PREVENTION

One of the fundamental challenges involved in evaluating prevention services is the breadth and diversity of the concept of prevention and a lack of consensus over what constitutes preventative services (Lombard, 2013). Since there is more clarity about the prevention concept in healthcare, social care research often draws on health definition of prevention, and distinguishes between primary, secondary and tertiary prevention, referring respectively to interventions aiming at:

Primary prevention: interventions directed at people who have little or no social care needs or symptoms of illness.

Secondary prevention: interventions that aim to assist individuals who have some social care need or illness in slowing down or stopping deterioration.

Tertiary prevention: services that are aimed at minimising disability or deterioration from established health conditions or complex social care needs and as a result to maximise their quality of life and reduce the need for more intensive care (Lombard, 2013, Gordon, 1983).

Wistow et al. (1997) proposed a two-fold definition of prevention which accounts for aims specific to the social care system, to include:

- Services which prevent or delay the need for care in higher cost, more intensive settings;
- Strategies and approaches which promote the quality of life of older people and their engagement with the community.

The first part of the definition is person centred and resource focused, since it is believed that people prefer to live at home and that homecare increase users' quality of life compared with care in institutions (Bettio and Verashchagina, 2010, OECD, 2013). It may also promise savings as the costs of care provided at home and in communities is expected to be cheaper relative to care provided in institutions, although the evidence to support such assertions is mixed (Miller and Weissert, 2010, Doty, 2010). The second part of the definition, recently embraced by the Care Act 2014, is wide-ranging and encompasses social inclusion, empowerment, health, social and economic wellbeing (HM Government, 2014, Wistow et al., 2003).

SOCIAL CARE OUTCOMES ARE COMPLEX

To evaluate cost-effectiveness of preventative services, adequate information need to be gathered on what the intervention achieves in terms of improved quality of life, better functioning, health or greater social participation etc. (Knapp, 2013).

Outcomes usually need to be multi-dimensional and each dimension can be difficult to assess. There are multiple and sometimes competing perspectives on outcomes, for instance, maximising independence or minimising risk of harm. Moreover, there are differences in the effect of services for different clients, for example, improving the wellbeing of carers can compete in some circumstances with improving the wellbeing of service users.

Researchers also recognise the importance of measuring various types of outcomes in assessing effectiveness of preventative services. Apart from final outcomes, such as wellbeing or quality of life, it is vital to measure process outcomes i.e. the experience of looking for, acquiring and using services, because they can enhance or undercut the impact of services (Netten, 2011, Glendinning et al., 2010).

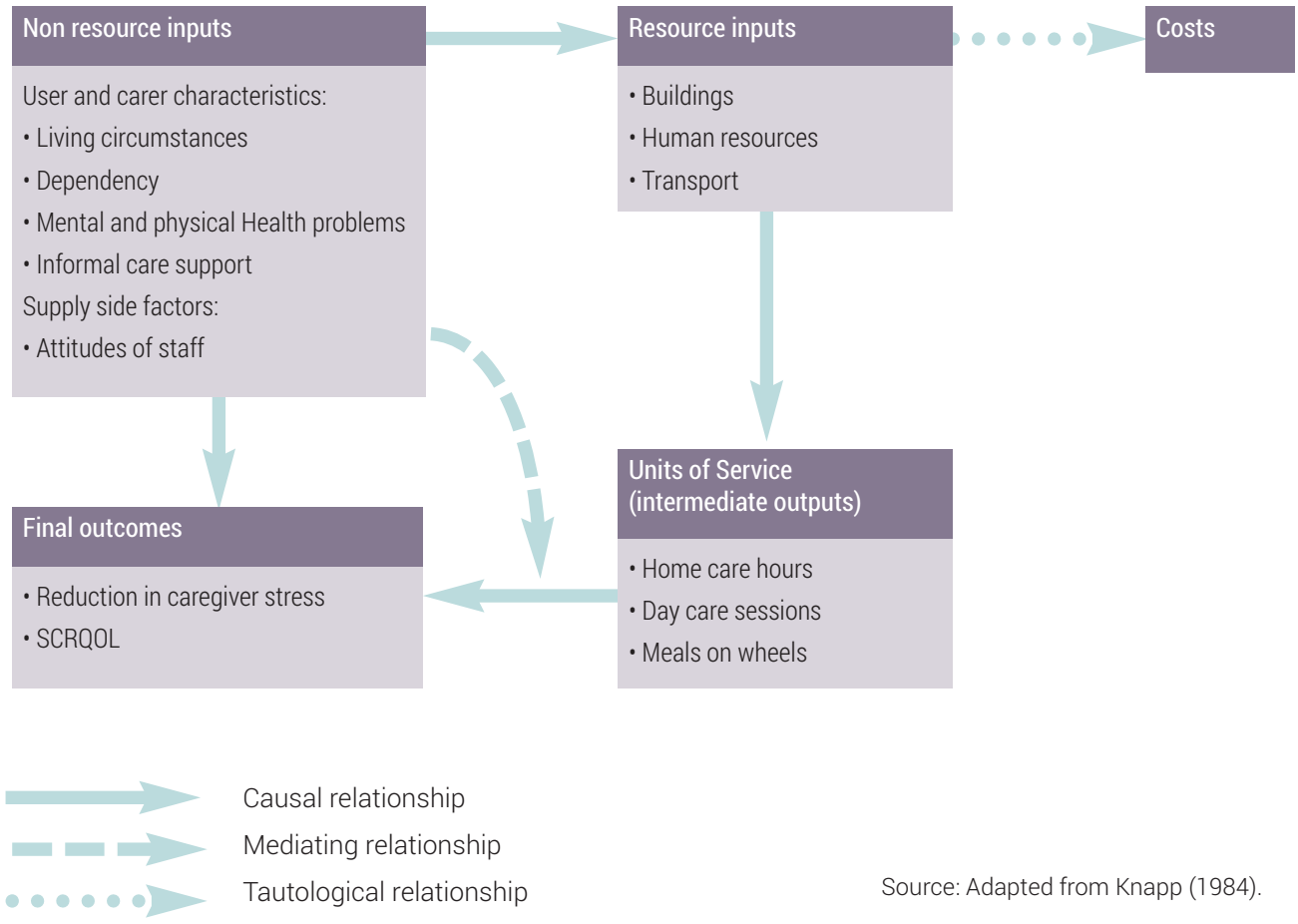
Similarly, intermediate outcomes can be measured, for example, whether or not people are admitted to care homes or hospitals. The assumption behind the measurement of latter outcomes is that individuals experience a better quality of life by staying in their own homes, although this assumption needs to be taken cautiously as for some individuals moving into a care home or hospital may be the best option (Netten, 2011). Measured outcomes should reflect the situation before and after the intervention was implemented and the vital factor is to identify the additional contribution of services to outcomes, being aware of the pitfalls of attributing all changes in outcomes to intervention. Furthermore, as social care services often target elderly and frail people it is vital to remember that sometimes the only change to be expected is deterioration in conditions.

CONTROLLING FOR NEEDS AND NON-SERVICE FACTORS

Although the level and quality of services delivered impact social care outcomes, the role of non-service factors, in particular needs-related traits of an individual, are also likely to impact outcomes (Fernandez and Knapp, 2005). Controlling for needs is thus essential to examine the contribution of preventative services to the outcome achieved. The complexity of needs is illustrated by the fact that the FACE Overview Assessment Tool accredited by the Department of Health for assessing service-users' needs recommends exploring six domains of needs related to: physical well-being, psychological well-being, activities of daily living, interpersonal relationships, social circumstances, family & carers, and each domain has several sub-dimensions. Such a heterogeneity of needs implies a requirement to collect wide-ranging information and a necessity for analytical methods which are able to explore the complex relationship between needs, services delivered and outcomes achieved (Fernandez and Knapp, 2005).

The Production of Welfare (POW) framework has been used to develop a good understanding of the impact of services on users' outcomes (Davies and Knapp, 1981, Knapp, 1984). Figure 3 illustrates the range of factors that need to be considered to isolate the contribution of services to the outcomes, which is particularly important as factors outside the control of policy makers are likely to be the source of most variation. Inputs include all resources (such as human resources), and non-resource factors (such as living circumstances) which create a service. Outputs comprise the actual service (such as home care hours), and final outcomes are the longer-term impacts on users' wellbeing.

FIGURE 3: THE PRODUCTION OF WELFARE PROCESS (POW)



Source: Adapted from Knapp (1984).

LONG-TERM EFFECTS AND COSTS

Social care needs and interventions are frequently long-term, the outcome effects of interventions and some of the costs are often slow to materialise and eventual savings derived from a successful preventive strategy might be observable only in the, perhaps distant, future while policy decision makers often require evidence now (Knapp, 2013). Cross-sectional research does not allow for capturing the attribution of effect (Windle et al., 2011) and longitudinal data is required to robustly measure changes in user outcomes and costs [savings] over time.

INTEGRATED APPROACH

Preventative services funded and provided by one system may have the greatest impact elsewhere. For example preventative services in social care may impact health, housing or social security benefits received etc. This in turn makes it challenging to measure the cost-savings not only over time but also across departments. This calls for coordinated actions and budgets to ensure that departments work together to invest in preventative strategies and that the economic costs and benefits from such interventions are shared appropriately (Knapp, 2013). However, previous studies pointed out organisational partnerships can be problematic due to time and commitment needed and cultural obstacles, concerns over confidentiality as well as difficulties in sharing because of different data storage systems (Windle et al., 2009, Miller, 2014).

6 METHODOLOGICAL ANSWERS TO THE PREVENTION EVALUATION CHALLENGES

Data requirements to evaluate preventative services depend on the nature and the aims of the evaluation; nonetheless a number of methods can be applied to address the challenges involved in evaluations of preventative services.

EXPERIMENTAL SET-UPS

Experimental set-ups can be applied when LAs pilot new interventions to investigate effectiveness and cost-effectiveness of services for individuals taking up an intervention compared with those not taking it up (e.g. in geographical clusters). Intervention groups/individuals are allocated new services and both the intervention and non-intervention groups are followed up in time and compared.

In experimental set-ups users are randomly allocated to either the intervention or comparison group, which is vital for mitigating selection effect and biased results by ensuring that individuals selected for the new intervention are similar to the non-intervention group. The randomisation allows (to a degree) for disentangling the effects of intervention from other factors such as the level of users' needs which are vital for evaluating prevention effects.

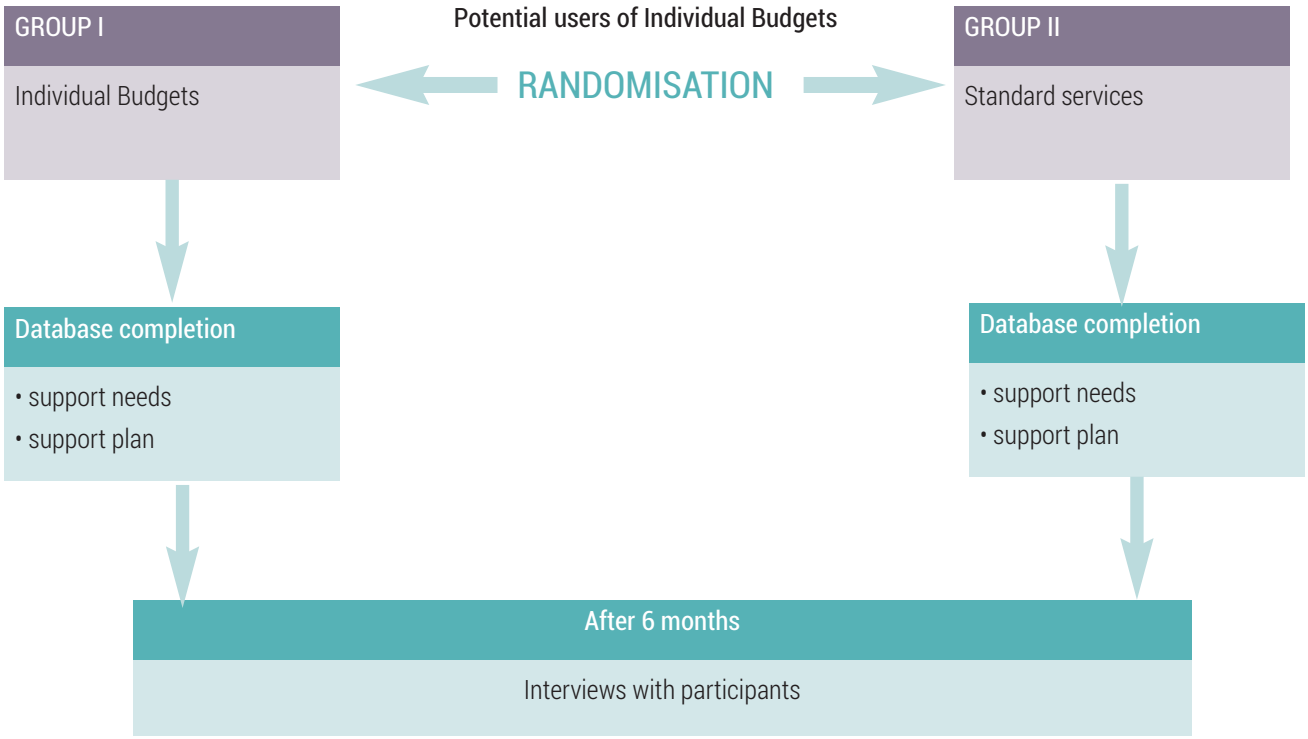
A good example of an experimental set-up and a randomisation process is The National Evaluation of the Individual Budgets Pilot Projects (IBSEN) which adopted Randomised Controlled Trial (RCT)[2] to examine the costs, outcomes and cost-effectiveness of Individual Budgets (IBs). Potential users of IBs were randomised, one group in each of the sites involved received IB while the comparison group continued to receive standard services. After 6 months members of both groups were interviewed and data were obtained on health and wellbeing indicators; data were also collected on the costs and content of the support plans for the IB group (Figure 4) (Glendinning et al., 2008).

BOX 1: EXPERIMENTAL SET-UPS

- The intervention and control groups should be approximately similar (although they do not guarantee that they are equivalent) and any outcomes observed between the two can be related to the intervention rather than individuals' characteristics in the group.
- Experimental set-ups assign individuals randomly to an intervention (treatment group) or no intervention (control group).
- Experimental set-ups can be used when implementing pilot interventions

2 RCTs are specific types of experimental set-ups; the rules for random allocation in RCTs are complex to ensure that the control and treatment groups are equivalent. RCTs are rare in social care as there are ethical issues involved in assigning individuals to different groups and IBSEN was one of few RCTs in ASC.

FIGURE 4: RANDOMISATION PROCESS: E.G. IBSEN STUDY



DIFFERENCE-IN-DIFFERENCE MODELS

Difference-in-differences methods (DiD) can be applied with interventions implemented in stages (e.g. by area) and they require pre- and post- implementation data from similar intervention and non-intervention geographical areas. Ideally DiD are used with individual level data however they might be helpful at aggregate level when no individual level data is available. The key assumption of the DiD methods is that changes in the outcome are likely to appear for both intervention and non-intervention groups since unmeasured factors, for example other policy initiatives, influence the participants and non-participants and by comparing the two groups over time the effectiveness of the preventative interventions can be investigated (Buckley and Yi, 2003).

BOX 2: DIFFERENCE IN DIFFERENCE METHODS

- DiD compare an intervention and a comparison group (first difference) before and after the intervention (second difference).
- By applying DiD methods one can disentangle general changes through time from effect of the scheme as it can be investigated what would have happened to the intervention groups/areas in the absence of the service.

SELECTING CONTROL GROUPS

Measuring the counterfactual necessitates an appropriate control group which does not undergo intervention. Control groups can be selected from individuals in the same local are who did not receive the piloted intervention. People in other similar geographical areas in terms of the demographics or care systems to the intervention population can be also selected if their areas are not implementing the same intervention. Moreover, randomisation can be built into the phasing of implementation of an intervention where eventually the whole population receives the intervention. It is very important to carefully choose control population since, regardless of the analytical methods used, the evaluation is likely to be biased if the fundamental assumptions are not met. If finding such an appropriate control group proves difficult retrospective matched control study design is an alternative approach where routinely collected data is used to generate a control group which can be matched with the intervention group on factors such as sex, age, level of deprivation, presence/absence of particular health conditions etc. (Davies et al., 2015, Steventon et al., 2015).

PRODUCTION RELATIONS AND REGRESSION METHODS

Where no comparison group exists, measuring the contribution of preventative services to the outcome achieved requires the ability to disentangle the relative contributions of service and non-service related factors (e.g. the level of need of the service user) to observed final outcomes. The production function is an econometric tool that is applied to describe the effect of the level of input on the output level and the marginal gains in outputs that would be gained by marginal increase in each input (Davies et al., 2000, Fernandez and Knapp, 2005). Production function can establish a pattern of relationships between the amount and nature of services and several measures of final outputs, given the diverse non-service-related factors that impact the outcomes.

The estimation of a production function relies on its ability to portray the complex relationships involved in the production process (Fernández and Knapp, 2004) and, among other things, it must consider the following factors:

- Improvements in output following small increases in inputs may depend on the level of provision of the input. The concepts of increasing, constant and diminishing returns to scale illustrate situations in which the impact on outputs of marginal increases in input factors increases, remains constant and diminishes as levels of inputs increase. In social care, describing patterns of returns to scale provides essential information for examining, for instance, the benefits of focusing resources on individuals in greatest need compared to redistributing resources to individuals with lower need (to obtain potential long-term preventive effects), or to serving less intensive care packages to a greater number of clients.
- Input substitutability. Since targeted levels of output (outcome) can be achieved through different combinations of inputs, a production function should describe the likely trade-offs between inputs in the production of the output.
- Input complementarity could occur if two services display positive (or negative) synergetic effects and they produce higher (or lower) output levels in combination than the sum of their individual separate effects. For example, home care and meals on wheels could produce better outcome provided together than individually, and production functions can test for the presence of such effects.

Studies that used the production function approach have applied regression models to specify the nature of the relationships between services and non-service factors. Regression analyses are particularly useful

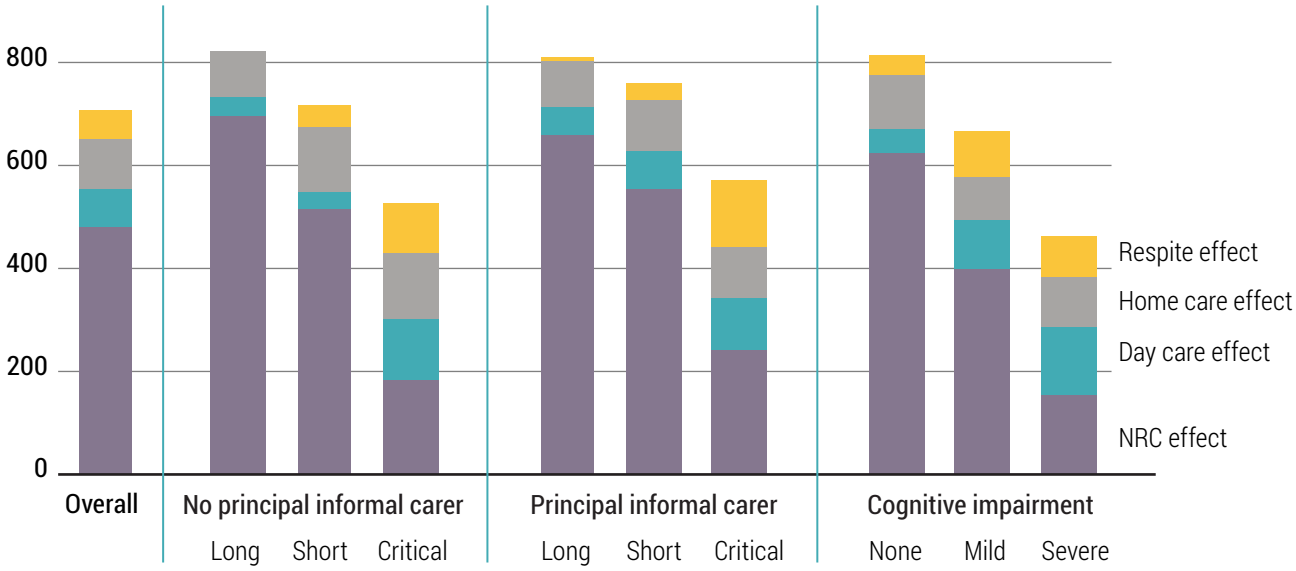
when there is no possibility of comparing two groups/areas (although they can also be applied to assess new/pilot interventions).

Davies at al. (2000) used multivariate regression models to estimate the contribution of different services (day care, home care, respite care) to the number of days at home prior to entering institutions controlling for difference in need-related circumstances (NRC) of service users for nine groups. Figure 5 illustrates that the relative contribution of the three services to delaying institutionalisation greatly depends on users' level of needs and the contribution to days at home is highest for users with higher levels of dependency and/or cognitive impairment.

BOX 3: REGRESSION METHODS

- Regression analyses can investigate the effect of units of service (e.g. day care hours, respite care hours) on final outcome (e.g. length of stay in the community) after controlling for the effect of non-service factors (e.g. the level of need).
- The analyses also calculate the statistical significance of the estimated relationships, namely, the degree of confidence that the estimated correlation is close to the factual relationship.
- Regression analyses thus allow for disentangling the relationship between the service and non-service factors etc. at the individual level and over time to understand the causal processes by which resources are allocated.

FIGURE 5: CONTRIBUTIONS OF SERVICES AND RISK FACTORS TO DAYS LIVING AT HOME PRIOR TO ENTERING INSTITUTIONS



Source: Davies et al. (2000).

7 CURRENT PRACTICES IN ENGLAND

In order to compare the information needs of an evaluation framework against existing local information and management systems, we carried out semi-structured interviews with key informants and we reviewed policy documents in six LAs. This allowed us to gain a deeper understanding of the way prevention is understood and embedded in local policy and to explore current practices around data collection and analyses.

LOCAL AUTHORITIES' UNDERSTANDING OF PREVENTION: DEFINITION, GOALS AND POLICIES

Local authorities in the study made ongoing attempts to embed prevention in policies and to invest in preventative interventions. Three surveyed local authorities had specific prevention strategies/policies. One LA had a multi-agency prevention strategy that defined prevention and set commissioning intentions based on key interventions from 'Making a strategic shift to prevention and early intervention' (Department of Health, 2008). One Council had a Joint Prevention & Early Intervention Strategy in partnership with local NHS and the wider community, and a number of strategies and plans were in place which constituted parts of the joint strategy. Another local authority had a proposal in place for ASC strategy that focused on being 'Proactive, Preventative and Personalised' and which set priorities for prevention.

Existing prevention strategies were grounded in the two-fold definition of prevention, although reducing social care costs appeared an important policy focus. Respondents often recognised that preventative agenda in ASC should aim to:

- Ensure and maximise independence
- Improve individuals' health and wellbeing
- Promote safety and security
- Promote community engagement
- Promote choice and control
- Reduce and delay the need for social services and long-term care

Differences in perceptions regarding preventative goals were reported within LAs. According to informants reducing demand for services and consequently decreasing the costs of providing care was one of the key gaols that senior management in local authorities aimed to achieve and investing in preventative services was often envisioned as a vital component of wider cost-reduction measures:

> It [prevention] is all about cost...It is about saving money, ...one of the biggest factors is that LTC, people are living longer therefore the costs are raising, and in terms of funding... it is reduced from year to year. Logics suggest that the best way to tackle it is to make sure that people do not get to that stage [of needing LTC] in the first place. (R2, LA6)

> ...in terms of reduced costs, reducing demand for statutory services...those two [goals] are very much at the very top...if we were not delivering against reducing demand and reducing cost there is a good argument that we would not exist. (R1, LA3)

> I think the emphasis of the Directorate is around trying to reduce the actual care and support costs. (R1, LA1)

Such disparity in preventative goals may translate into different priorities regarding preventative service model and has implications for conceptualisation of prevention.

Where LAs did not have in place an explicit prevention policy or strategy, prevention was embedded in other policies and pathways linked to specific services and/or groups of users e.g. with dementia or learning disabilities. Respondents mentioned that the lack of a clear prevention policy was a major barrier to effective implementation of services. It was also pointed out that the lack of a clear understanding of prevention hampers translating preventative strategies into everyday practices.

> People talk about prevention and say we are doing it but unless it is really clear what that means in your everyday practice you cannot change your practice.....all the buzz words make sense in a way, but actually what you do as a practitioner to reflect these is less clear I think and that is what causes the confusion...If you just say things are preventative, my understanding of preventative, your understanding, somebody else's understanding is open to interpretation and that is why I believe strongly you need an explicit [prevention] strategy... (R1, LA2)
>
> We need a prevention strategy that clarifies what our key interventions are, what are the relevant measures and how we can apply them. Each project has its own objectives but they are not brought together anywhere... "(R2 LA5).

Different conceptualisations of prevention translate into heterogeneity of approaches to data collection and analyses among surveyed LAs and have implications for developing an evaluation framework as different approaches will require different evaluation methods (see section below for more information on data collection/analyses).

PREVENTATIVE SERVICES

The lack of a clear conceptualisation of prevention is visible in divergent opinions among key informants with regards to which services are preventative. Some informants identified a specific set of services as preventative (such as reablement, telecare or adaptations) at individual level.

> R1: So what kind of services would you label as preventative, apart from telecare and reablement?
>
> Interviewer (I): Apart from reablement and telecare we do equipment...it is not clear whether the equipment is preventative… there is no evidence to suggest that equipment in itself prevents further services being required ... (R1, LA1)

Yet, according to others, prevention is a broad umbrella used to describe a wide set of interventions which promote culture change and individuals' as well as communities' independence:

> R1…all of our services are preventative...particularly if you are looking at that kind of high definition [of prevention] around wellbeing and independence etc....
>
> R2...we have done a lot of work to help people to self-support, and...we are working to really get communities to support each other rather than having to come to the council... changing that culture from 'the council will do for us' to 'we will do for ourselves' … (LA3)

It was also highlighted that although most services in ASC have the potential to be

preventative, whether they are preventative or not significantly depends on the way interventions are carried out by practitioners:

> ... somebody who is a plus size individual and has functional difficulties...[we should] start looking at weight management because that would be more preventative... the practitioner will ...provide the riser chair so the person can now be independent and safe in transferring but will not make the onward referral perhaps to a dietician. (LA2)

According to some respondents, prevention strategy should partly focus on changing practitioners' attitudes to work in a way that would promote individuals' independence and autonomy. A conceptualisation of prevention which focuses on the way services are provided, rather than on the types of services delivered, poses specific challenges for evaluating prevention effects and measured outcomes where capturing quality of Life (QoL) becomes vital.

LINKING PREVENTION TO COMMISSIONING

The rationale for commissioning preventative services was reported to be related to the degree of evidence that exists regarding effectiveness and cost-effectiveness of particular services. Respondents mentioned that such services as adaptations and reablement were explicitly linked to commissioning due to their cost-savings potential, however there was little link between other [potentially] preventative services and commissioning. The lack of data around costs-effectiveness made it difficult to build business cases to invest in prevention in the current financial climate:

> The problem with selling prevention...let alone to our finance colleagues, it is also a struggle to sell it to our senior directors, to say 'look if you invest here now this is how it will impact on the budget in 3, 4 years'...Policies are not driving our strategy; it is budget saving which is driving our strategy, corporately...what we cannot do is look at the impact [of preventative services] on the whole system over a period of time, we do not have that empirical evidence (R1 LA6).

The lack of local data on effectiveness and cost-effectiveness of preventative services meant that LAs used research evidence to support their business cases, however, reliance on external data was labelled as a 'leap of faith' (R2 LA6) due to uncertainty regarding the transferability of evidence to idiosyncratic local contexts. The lack of evidence around (cost) effectiveness may lead to underinvestment in prevention in the current climate of financial austerity with long-term negative consequences for the users' outcomes and the effectiveness of the system.

POTENTIAL FOR PREVENTION

Respondents frequently reported that investing in upstream services and targeting people with low level needs has an untapped potential for prevention. Conversely, it was pointed out that both upstream and downstream services are important to assist people with different needs and in different stages of life. Additionally, the following factors were brought to light by informants as having unexploited so far potential for maximising benefits from preventative services:

- Following individuals who had been previously signposted to community services
- Utilising community assets

- Culture change among practitioners so that standard services are provided in a more preventative way to facilitate users' independence
- Collaboration with other departments, particularly primary care and GPs to ensure that individuals are referred to services in a timely manner
- Accurate identification of user needs to provide more accurate and bespoke interventions:

> ...we looked at why people were going into sheltered care, there were two main reasons, one was bereavement, probably loneliness and isolation, they saw it as a company, and another one was the fear of crime, safety issues. So neither of the two things really led to the need for supported housing, they needed other things ...we do not know enough about what leads people coming into the system, if we know that, we know where the most powerful part to intervene is (R2 LA4)

INTEGRATION WITH OTHER AGENCIES

Collaboration across sectors is particularly important in prevention domain, since the benefits may accrue to a different department from the one that funded the intervention. Returns on investment and cost-effectiveness of preventative services may thus only be visible when assessed across departments. Integrated working with other agencies was framed as an 'essential, not optional' part of the vision for ASC to enable a more preventative model (Department of Health, 2010). The Better Care Fund (BCF) has encouraged health and social care integration through creating pooled budgets from April 2015[3].

According to informants in our study, a degree of collaboration exists between ASC and health partners. A number of interventions were provided and/or (co) funded across sectors including voluntary and private sectors, health care, public health, housing, transport services and police. Three local authorities commissioned preventative services jointly with other agencies (such as public health and/or Clinical Commissioning Groups (CCGs)). Overall, joint commissioning was reported to be better coordinated in specialist care, nevertheless, respondents stated that Councils were gradually moving towards more joint commissioning posts in light of BCF plans for more integrated services and pooled budgets. Informants also recognised the need to eliminate duplicating efforts through joint commissioning to improve efficiency of the system.

Notwithstanding the efforts for joint work to deliver prevention agenda, the degree of partnership varied between LAs, various departments and services. It was reported that collaboration was more frequent in designing, funding and evaluating services for people with mental health needs and learning disabilities. Public health's move to local authorities appears to facilitate important and novel opportunities to work towards an integrated approach to prevention; however, partnerships with the NHS have been reported to be less successful:

> We tried with our assistive technology but it has been difficult to engage our health colleagues with that, whereas we do feel that they are a key partner...it is very clear that most of the engagement with health tends not to maximise that preventative side at the moment... The GPs and health services, I think still, probably we are still in silo... I think what a stronger area is adult mental health, where the services are really joint up... (R1 LA 4)

> ...the move of public health here has made some really significant improvements [in collaboration]... we just have to crack GP's now... It is always a difficult sell to GP's, always. (R2 LA 3)

3 Local plans to use the money [£5.3 billion] had to be agreed between the local authorities and Clinical Commissioning Groups; while health and wellbeing boards were expected to sign off local plans.

The King's Fund report (Humphries and Galea, 2013) on how local governments and the NHS implement the Health and Wellbeing Boards (HWB)[4] reported that the main priorities of most HWB concerned public health and health inequalities and it was noted that boards were not very effective in the implementation of integrated care and in promoting prevention (Humphries and Galea, 2013). Indeed, only five local authorities in the report mentioned prevention and nine reported integration as priority goals while Marmot principles[5] were mentioned by forty nine out of sixty-five respondents.

Despite the lack of explicit focus on prevention and integration, Marmot principles are aligned with the broad conceptualisation of prevention and such preventative goals as maximising independence, promoting choice and control or improving health and wellbeing.

A review of a prevention strategy led by public health within a partnership framework provided by the HWB in a sampled local authority in this study gives an indication of the alignment of preventative goals and collaboration between public health and ASC. The goals around primary prevention focused on, among other things, ensuring that older people were safe, independent and well and that opportunities were taken to enhance their health and wellbeing. The secondary and tertiary prevention goals concentrated on reducing social isolation and loneliness, social care and support in the community, housing and supporting carers. The strategy thus indicates a possibility of a systems' wide perspective on prevention and demonstrates that local authorities can successfully bring together its new public health responsibilities and capabilities with its ASC approach to prevention.

4. Health and Wellbeing Boards were established under the Health and Social Care Act 2012 to facilitate collaboration of key leaders from the health and care system.

5.The Marmot Review's six policy objectives for reducing health inequalities are: 1. Give every child the best start in life. 2. Enable all children, young people and adults to maximise their capabilities and have control over their lives. 3. Create fair employment and good work for all. 4. Ensure a healthy standard of living for all. 5. Create and develop healthy and sustainable places and communities. 6. Strengthen the role and impact of ill-health prevention (Humphries et al. 2013).

8 ASSESSING PREVENTATIVE EFFECTS OF SERVICES

The sections below give an overview of the processes involved in outcome and costs measurements and of local monitoring systems.

PILOTING NEW SERVICES

Local authorities in the study piloted new preventative services, some conducted regular pilots whereas others piloted only a limited number of interventions. Overall, were pilots were conducted, evaluations were carried out if they continued into mainstream services. Reablement services were most frequently piloted and typically effectiveness and cost-effectiveness of interventions was assessed. Telecare, community navigators, adaptations and falls prevention were also commonly piloted, however often only basic data were collected about, for example, pieces of equipment provided or costs per equipment, and typically descriptive analyses were conducted which did not allow for a robust appraisal of effectiveness or cost-effectiveness of services (see sections below for more details on data collection and analyses). There is an untapped potential to employ experimental set-ups and control groups when piloting new interventions at individual or community level to investigate the achieved outcomes and cost-effectiveness of services.

COLLECTING REGULAR EVIDENCE ABOUT PREVENTATIVE SERVICES

All of the surveyed LAs collected quantitative and some gathered qualitative data on preventative services either regularly, on an ad hoc basis and/or as a part of wider ongoing projects. Two LAs relied heavily for data from providers. The quality of data from providers, the outcomes measured, as well as information system providers use varied, which poses problems to robust measurement of services. Collecting longitudinal data is vital for assessment of preventative interventions as the effects of such interventions take time to materialise. One LA had good longitudinal data related to support plans, although they were in the process of changing their IT systems so it was not certain whether they would be able to retrieve past records. Another LA reported to have some longitudinal data linked to particular services. Although three LAs were not collecting longitudinal data at individual level, two of them reported to have the ability to do so if required. The findings point to the potential to further develop data bases necessary to carry out robust evaluations to identify the impact of various preventative services on outcomes and costs.

MEASURING OUTCOMES

The approaches to measuring outcomes for interventions varied widely and LAs monitored performance using local measures, users' views and the Adult Social Care Outcomes Framework (ASCOF). Overall, LAs reported that the majority of information captured for adaptations, equipment services, telecare/ telehealth and falls prevention referred to how many pieces of equipment are provided, how many individuals use the service and costs per client/equipment. For falls prevention, equipment and reablement some LAs also measured the percentage of users of a particular service who did not go on to receive another mainstream service during the measured period.

One LA reported monitoring the effectiveness of reablement services through tools based on National Institute for Health and Care Excellence (NICE) guidance, personal outcomes achieved and measured through a variety of QoL domains. Two LAs used ASCOF combined with local measures reported on quarterly basis and stored electronically. Conversely, in another LA it was pointed out that 'we do not use ASCOF because there isn't anything in ASCOF for preventative services' (R1 LA4). This yet again highlights that conceptualisation of prevention and the understanding of what preventative services are impacts reported data collection tools and outcome measurements.

Two LA reported that different provider approaches to outcome measurement made it problematic to evaluate services:

> …different organisations [providers] have different approaches around how they measure outcomes and different levels of success, some have very simple surveys which…do not necessarily provide robust evidence about outcomes, whereas you have some organisations which use nationally recognised QoL indicators… (R1 LA 3)

Such variations pose difficulties to the development of an evaluation framework and call for a better harmonisation of provider-led data collection.

ANALYTICAL CAPABILITIES AND DATA ANALYSIS

Three LAs reported to have the capacity and capabilities to collect and analyse data inhouse. Two LAs reported to have limited abilities to do so either due to limited manpower overall, or shortages of analysts with advanced statistical capabilities. Key informants pointed out to the limitations and the lack of expertise to develop more effective evaluation tools, and they mentioned the need for assistance from an academic institution to develop these. Partly because of a limited capability to produce more advanced analyses, in most LAs descriptive methods where used to analyse collected data and Councils produced general descriptive reports of area patterns; team-level or district level analyses were also produced on an ad hoc basis.

DATA SHARING WITHIN LAS AND WITH EXTERNAL AGENCIES

Collected data and analyses were used to inform commissioning and managers' business decisions, as well as to discuss priorities with assessment and support planning teams. It was also mentioned that the data could be more widely disseminated and used:

> It [data] tends to go via managers, I would not say it is widely disseminated, if there is a working group or pilot group looking at particular area, it tends to go to the managers responsible for it...I will say it is [data] not used as widely as it should be. (R3, LA4)

In another LA the data were used for setting up care packages, however the respondent was uncertain of the extent to which data were used for this purpose:

> ...how systematically that is done, how that is packed up within our IT system I am not sure if I can say, probably not as robust as it could be, but that partly because it is done on individual basis, because that is how we set those packages of care. (R1 LA3)

Since interventions provided by ASC may have the greatest impact elsewhere evaluations of preventative interventions require capturing outcomes and costs across agencies and sharing relevant data.

Three local authorities shared data with the NHS linked to specific services i.e. hospital discharge or reablement; and one Council was focusing on linking data at GP level. Data sharing was reported to be limited because of concerns over confidentiality, due to lack of managerial commitment to link data and cultural obstacles but also due to incompatible information management systems used by different departments. Conversely, key informants recognised the need to, and the benefits of, data sharing to better understand the economic benefits of investing in prevention across public sector.

A NOTE ON UNDERSTANDING OF DATA COLLECTION, ANALYSIS AND OUTPUTS PRODUCED

The understanding of the processes of information gathering, the outcomes measured and analyses produced varied among interviewed managers and commissioners. Interviews and the end-of-project workshop indicated that a link between policy, data collection and analyses was weak in some LAs and that a better integration of data and policy could lead to significant improvements in the targeting of resources.

9 DIRECTIONS, CONCLUSIONS AND RECOMMENDATIONS

The Care Act 2014 imposes an obligation on LAs to provide services which will contribute towards preventing or delaying the development of needs for care and support of users and carers and to identify services, facilities and resources already available and groups of adults to best fulfil the above mentioned duty (HM Government, 2014). The new legal duties around prevention reinforce the need local interests in developing an evaluation framework which will enable local decision makers to make more informed choices regarding targeting of resources.

Considering the timescale of this project it was not possible to draft prevention evaluation framework, nevertheless, this study has laid the foundations of such a framework and highlighted important areas of priority for practice-focused research. There was a significant interest in sampled LAs to fully utilise the potential of preventative services to improve users' outcomes and to make long-term financial savings. Efforts were made to embed prevention in policy as well as to develop adequate data collection and analyses methods to provide evidence around effectiveness and cost-effectiveness of prevention.

Despite policy emphasis on prevention and local efforts to deliver prevention strategy, the findings highlight clear limitations in local approaches define and evaluate preventative services. As respondents in this study repeatedly highlighted prevention means different things to different people and the concept of prevention is unclear. Different conceptualisations of prevention translate into heterogeneity of approaches to reported data collection and analyses and have implications for developing an evaluation framework as different preventative approaches will require different evaluation methods. For example, a preventative approach which focuses on the way services are delivered to empower service users and to enable their maximum independence requires a specific evaluation model which accounts for the role of co-production and measuring the inputs of non-statutory contributions to understand, for example, possible overreliance on carers and users. Furthermore, evaluating different types of preventative services i.e. primary, secondary and tertiary; new services and mainstream interventions; poses different challenges and requires different methodological approaches to evaluation. Overall, the lack of consensus on what comprises preventative services calls for a development of a typology of approaches to prevention to develop coherent data collection strategies and analyses among LAs.

Returns to investment and cost-effectiveness of preventative services may only be robustly assessed across departments and the increasing national policy focus on integrated services provides an opportunity for a better investment in, and evaluations of integrated preventative interventions. The term 'integrated services' is used locally in relation to a range of collaborative arrangements between different organisations to design, fund and evaluate a variety of preventative interventions. Our findings indicate that whereas collaboration between ASC and public health has improved since the latter became responsibility of the local government, joint work with the NHS is hampered by cultural differences as well as technical problems. Barriers to collaboration in service design, delivery and evaluation may impede gathering of robust evidence and an efficient use of resources, which may be detrimental to users, but it may also hamper providers to develop innovative service models (see also Miller, 2014).

Conversely, current local efforts to improve collaboration with other departments are undoubtedly a starting point to devise better data sharing and evaluation methods capturing preventative outcomes and costs across agencies.

Overall, LAs differed extensively in the volume and variety of data collected, yet they used predominantly descriptive analyses of the data, which provided limited insight into the effectiveness and cost-effectiveness of interventions and our findings point to the existing potential to further develop data bases necessary for more robust assessments.

Key informants emphasized the lack of research expertise locally to develop evaluation methods that would best exploit data already collected and local analytical capabilities. Councils would benefit from greater support and guidance to assist them in identifying potential outcome measures and methodological approaches that could be used for local evaluations.

Although all sampled LAs piloted new interventions, the evaluations of these varied; data collected and/or analyses conducted did not always allow for a robust assessment of cost-effectiveness of services. Thinking about the data that could be realistically collected during the pilot stage and conducting more robust evaluations of piloted services could meaningfully contribute to the judgments whether to mainstream a service or not (see also Miller and Whitehead, 2015).

Our findings indicate that there are yet untapped opportunities to use data and evidence gathered by local authorities to improve targeting of resources. Better integration of evidence into local decision making processes could provide a greater clarity regarding effectiveness of investing in the myriad of preventative initiatives and could help local authorities to improve cost-effectiveness of the social care system and the quality of life of service users and carers.

The interviews and the end-of-the project workshop confirmed that there is a need and significant local interest in developing a prevention evaluation framework. Developing local evaluations is imperative to empower Councils to make better informed, locally grounded judgements about such issues as the optimum balance of resources between people with different levels of need, and between different types of services in order to use their scarce resources in a most effective manner.

There are considerable opportunities to better exploit current local information and management systems to develop more robust local evaluations, however more research is needed to assess the heterogeneity of contexts to develop a prevention evaluation framework in social care.

10 REFERENCES

Bettio, F. and Verashchagina, A. (2010). *Long-term care for the elderly. Provisions and providers in 33 European countries*. Luxemburg: Publications Office of the European Union.

Buckley, J. and Shang, Y., (2003). Estimating policy and program effects with observational data: the "differences-in-differences" estimator. *Practical Assessment, Research & Evaluation*, *8*(24), pp.1–10.

Cook, G., Cook, M., Thynne, E. and Chandler, C. (2013). *An evaluation of 'HENPOWER': Improving Wellbeing & Social Capital in Care Settings*. Northumbria University. Available at: https://equalarts.org.uk/media/HENPOWERfinalreport.pdf

Coulton, S., Clift, S., Skingley, A. and Rodriguez, J. (2015). Effectiveness and cost-effectiveness of community singing on mental health-related quality of life of older people: randomised controlled trial. *The British Journal of Psychiatry, 207*(3), pp.250-–255.

Curry, N. (2006). Preventative social care – is it cost effective? In: D. Wanless, ed., *Background paper to Wanless*, 1st ed. Wanless Social Care Review. London: King's Fund.

Davies, A., Ariti, C., Georghiou, T. and Bardsley, M. (2015). Evaluation of complex health and care interventions using retrospective matched control methods. London: Nuffield Trust.

Davies, B., Fernández, J. and Bülent, N. (2000). *Equity and efficiency policy in community care: Needs, service productivities, efficiencies and their implications*. Aldershot: Ashgate Publishing Ltd.

Davies, B. and Knapp, M. (1981). *Old people's homes and the production of welfare*. London: Routledge & Kegan Paul.

Department of Health, (2008). *Making a strategic shift towards prevention and early intervention. Key messages for decision makers*. London: Department of Health.

Department of Health, (2010). *A Vision for Adult Social Care: Capable Communities and Active Citizens*. London: Department of Health.

Department of Health, (2011). *Whole system demonstrator programme. Headline findings*. London: Department of Health.

Department of Health, (2012). *Long term conditions compendium of information*. London: Department of Health.

Department of Health, (2014). *Care and Support Statutory Guidance Issued under the Care Act 2014*. London: Department of Health

Dickens, A., Richards, S, Greaves, C. and Campbell, J. (2011). Interventions targeting social isolation in older people: a systematic review. *BMC public health*, *11*(1), p.647.

Doty, P. (2010). The evolving balance of formal and informal, institutional and non-institutional long-term care for older Americans: A thirty-year perspective. In: R. Hudson, ed*., Public Policy & Aging Report Washington*, 1st ed. DC: The National Academy on an Aging Society.

Farag, I., Sherrington, C., Hayes, A., Canning, C.G., Lord, S.R., Close, J.C., Fung, V.S. and Howard, K. (2016). Economic evaluation of a falls prevention exercise program among people With Parkinson's disease. *Movement disorders*, *31*(1), pp.53-61.

Fernández, J. and Knapp, M. (2005). Production relations in social care. In: M. Knapp, Challis, D., Fernández, J., Netten, A. and Davies, B., eds. *Long-term care: Matching resources to needs*, 1st ed. Aldershot: Ashgate Publishing Ltd.

Francis, J., Fisher, M. and Rutter, D. (2011*). Reablement: A cost-effective route to better outcomes*. London: Social Care Institute for Excellence.

Glendinning, C., Chalis, D., Fernández, J., Jacobs, S., Jones, K., Knapp, M., Manthorpe, J., Moran, N., Netten, A., Stevens, M. and Wilberforce, M. (2008). *Evaluation of the Individual Budgets Pilot Programme: Final report*. York: Social Policy Research Unit, University of York.

Glendinning, C., Jones, K., Baxter, K., Rabiee, P., Curtis, L., Wilde, A., Arksey, H. and Forder, J. (2010). *Home care re-ablement services: Investigating the longer-term impacts (prospective longitudinal study)*. York: Social Policy Research Unit, University of York.

Gordon, R. (1983). An operational classification of disease prevention. *Public health reports*, *98*(2), pp.107–109.

Haslam, C., Haslam, S., Ysseldyk, R., McCloskey, L., Pfisterer, K. and Brown, S. (2014). Social identification moderates cognitive health and well-being following story-and song-based reminiscence. *Aging & Mental Health*, *18*(4), pp.425–-434.

Hayashi, C., Olkkonen, H., Sikken, B. and Yermo, J. (2009). Strategic options to finance pensions and healthcare in a rapidly aging world: Opportunities and collaborative strategies. In: World Economic Forum, Mercer and OECD, eds. World Series.

Henderson, C., Knapp, M., Fernández, J., Beecham, J., Hirani, S., Beynon, M., Cartwright, M., Rixon, L., Doll, H., Bower, P., Steventon, A., Rogers, A., Fitzpatrick, R., Barlow, J., Bardsley, M. and Newman, S. (2014). Cost-effectiveness of telecare for people with social care needs: the Whole Systems Demonstrator cluster randomised trial. *Age and Ageing, 43*(6), pp.794-800.

Hirani, S., Beynon, M., Cartwright, M., Rixon, L., Doll, H., Henderson, C., Bardsley, M., Steventon, A., Knapp, M., Rogers, A., Bower, P., Sanders, C., Fitzpatrick, R., Hendy, J. and Newman, S. (2014). The effect of telecare on the quality of life and psychological well-being of elderly recipients of social care over a 12-month period: the Whole Systems Demonstrator cluster randomised trial. *Age and ageing*, *43*(3), pp.334–341.

HM Government (2006). *Our health, our care, our say: A new direction for community services*. London: The Stationary Office.

HM Government (2007). *Putting people first: a shared vision and commitment to the transformation of adult social care*.

HM Government (2014). *Care Act 2014*. London: The Stationery Office.

Humphries, R. (2010). *Dartington review on the future of adult social care*. Dartington: Research in Practice for Adults.

Humphries, R. and Galea, A. (2013). *Health and wellbeing boards: one year on*. London: The King's Fund.

Keall, M., Pierse, N., Howden-Chapman, P., Cunningham, C., Cunningham, M., Guria, J. and Baker, M. (2015). Home modifications to reduce injuries from falls in the home injury prevention intervention (HIPI) study: a cluster-randomised controlled trial. *The Lancet*, *385*(9964), pp.231–238.

Knapp, M. (1984). *The economics of social care*. London: Macmillan.

Knapp, M. (2013). Prevention: wrestling with new economic realities. *Tizard Learning Disability Review*, *18*(4), pp.186–191.

Knapp, M., Bauer, A., Perkins, M. and Snell, T. (2010). Building community capacity: making an economic case. London: PSSRU, London School of Economics.

Lawlor, B., Golden, J., Paul, G., Walsh, C., Conroy, R., Holfeld, E. and Tobin, M. (2014). *Only the Lonely: a randomized controlled trial of a volunteer visiting programme for older people experiencing loneliness*. Dublin: Age Friendly Ireland.

Lombard, D. (2013). *Preventing Need and Maximising Independence: Literature Review*. Dartington: Research in Practice for Adults.

Miller, E. and Weissert, W. (2010). The Commonwealth Fund survey of long-term care specialists. *Medical Care Research and Review*, 67, pp.3–15.

Miller, R. (2014). *Is integration or fragmentation the starting point to improve prevention?*. University of Birmingham, Health Services Management Centre.

Miller, R. and Allen, K. (2013). *Prevention services, social care and older people: much discussed but little researched?* SSCR Research Findings 17. London: NIHR School for Social Care Research.

Miller, R. and Whitehead, C. (2015). Inside out and upside down: Community based approaches to social care prevention in a time of austerity. *Association of Directors of Adult Social Services, Birmingham.*

Netten, A. (2011). *Overview of outcome measurement for adults using social care services and support.* SSCR Methods Review 6. London: NIHR School for Social Care Research.

OECD (2013). *Health at a glance 2013: OECD indicators*. OECD Publishing.

QSR International PTY LTD (2014). Nvivo Version 10.

Shaw, F., Bond, J., Richardson, D., Dawson, P., Steen, I., McKeith, I. and Kenny, R., (2003). Multifactorial intervention after a fall in older people with cognitive impairment and dementia presenting to the accident and emergency department: randomised controlled trial. *Bmj*, *326*(7380), p.73.

Skingley, A., Martin, A. and Clift, S. (2016). The contribution of community singing groups to the well-being of older people: Participant perspectives from the United Kingdom. *Journal of Applied Gerontology*, *35*(12), pp.1302–1324.

Steventon, A. and Bardsley, M. (2012). The impact of telehealth on use of hospital care and mortality. *Nuff Trust*, *1*, p.12.

Steventon, A., Grieve, R. and Sekhon, J. (2015). A comparison of alternative strategies for choosing control populations in observational studies. *Health Services and Outcomes Research Methodology*, *15*(3-4), pp.157–181.

Think Local Act Personal (2011). *A Sector-wide Commitment to Moving Forward with Personalisation and Community-based Support*. London: TLAP.

Windle, K., Francis, J. and Coomber, C., 2011. *Preventing loneliness and social isolation: interventions and outcomes*. London: Social Care Institute for Excellence.

Windle, K., Wagland, R., Forder, J., D'Amico, F., Janssen, J. and Wistow, G. (2009). *National evaluation of the partnership for older people projects (POPP)*. Kent: PSSRU, University of Kent.

Wistow, G. and Lewis, H. (1997). *Preventative services for older people: Current approaches and future opportunities*. Oxford: Anchor Trust.

Wistow, G., Waddington, E. and Godfrey, M. (2003). *Living well in later life: from prevention to promotion*. Leeds: Nuffield Institute for Health.

APPENDIX 1

SURVEYED LOCAL AUTHORITIES AND INFORMANTS' CHARACTERISTICS

	Type of local authority	Informants' characteristics
LA 1	Metropolitan Borough	R1: Head of Service, Access and Prevention, Adult Social Services R2 : Information Analyst
LA 2	London Borough (outer)	R1: OT Professional Lead, Commissioning
LA 3	London Borough (outer)	R1:Promoting Independence Programme Manager R2: Promoting Independence Officer Adult Social Services, Health and Housing
LA 4	Metropolitan Borough	R1: Assistant Director, Older People and Personalisation R2: Head of Service, Housing Support R3: Business Intelligence Manager
LA 5	A Non-Metropolitan County	R1 & R2: Strategic Development Managers in Adult Social Services
LA 6	Metropolitan Borough	R1 & R2: Market Manager & Strategic Commissioner responsible for prevention, Joint Commissioning Team, Health and Social Care

APPENDIX 2

INTERVIEW SCHEDULE FOR SEMI-STRUCTURED INTERVIEWS

.THE DEVELOPMENT AND TESTING OF A LOCAL FRAMEWORK FOR EVALUATING PREVENTION EFFECTS IN ENGLAND

Interview length: 45–60 minutes

Date:
Time:

INTRODUCTION

- Thank you for being willing to take part in an interview in this project.
- I would like briefly to introduce you to the subject of this interview.
- I want to confirm that:
  - You can refuse to answer questions and withdraw from the interview at any stage.
  - Information you provide is confidential, the data for wider dissemination will be anonymised.
  - Can I get your permission to audio record this interview to have the set of accurate data& your responses. It will also facilitate the analysis of the data.
- Further questions?

S1. Local understanding of prevention

1. How would you define in your own words the goals associated with 'preventative' services?
   a. How much emphasis is placed locally in achieving these objectives? And why?
2. In which areas do you concentrate the prevention efforts?
   a. What clients do you concentrate on? For example:
   - People with certain conditions (e.g. with certain long-term conditions)
   - People in certain situations? (e.g. socially isolated, discharged from hospital)
   - Other?

   b. What services do you concentrate on? For example:
   - Specific services/interventions (e.g. reablement; virtual wards) or
   - The provision of 'standard' social care support
   - What types of secondary & tertiary preventive services do you provide? (e.g. Reablement, Post-discharge hospital support, falls preventions, telecare/health, aids/adaptations/equipment etc.)
3. What outcomes to you aim to achieve?

4. Where do you think the greatest potential for prevention lies?
   - Upstream prevention of deterioration of needs
   - 'Containment' interventions for high-risk users

S2. How is 'prevention' reflected in local practice?

1. Do you have explicit policies on 'prevention'? If so could we have them?
2. Do you have explicit processes for evaluating future prevention needs? E.g. is assessment of the potential for prevention (e.g. of future deterioration) an explicit part of the assessment of needs?
3. Do you use standard assessment tools of prevention potential (e.g. risk assessment tools)
4. Is prevention an explicit objective linked to the commissioning of services?

S3. Coordination of "prevention" efforts

1. Which other service areas/support systems are involved in the design and evaluation of "prevention" services and processes:
   a. Health partners
   - Local CCG
   - Local GPs
   - Other

   b. Housing services

   c. Voluntary sector

   d. Other

   (Prompt for joint policies/statements)
2. Do you pool resources with other partners for prevention?

S4. How do you assess the preventative effects of the services?

1. Do you set-up pilots when introducing new preventative services?
   a. If so, how do you evaluate them? (if so, can we have examples of the evaluations)
2. Do you regularly:

   a. Collect specific evidence about the preventative effect of services
   - Qualitative/ quantitative data

   b. Analyse existing administrative data to assess prevention effects?
   - If so, which methods do you use to assess the data?
3. What tools/indicators do you currently use to assess performance? (e.g. ASCOF)
4. Local data holdings

   Could you share with us examples of the information that is regularly collected in electronic form about individuals (e.g. assessment forms, lists of indicators) in the following domains:

   a. User and carer's needs
   - Health problems

- Physical dependency
- Social isolation
- Personal characteristics

b. Service receipt

- Receipt of individual services
- Cost of support

c. Outcomes

- Process outcomes (e.g. targeting of preventative services)
- Destinational outcomes (e.g. institutionalisation, use of hospital inputs)
- Final outcomes (e.g. quality of life indicators; survival)

5. Are these data collected on a continuous basis (can they be linked at the individual level through time?)
6. Do you share these data across agencies?

If not, why not? (e.g. because of concerns about confidentiality?)

S5. Analytical capabilities

1. Does your local authority have a team of analysts that regularly examine the data listed above in order to monitor local performance with regards to prevention?

If so:

2. What sort of analyses are produced by the team? Which outputs are produced?
   a. General descriptive reports of area patterns
   b. Team-level or sub-area (e.g. district) level analyses
   c. Individual user reports (e.g. list of users at high-risk of negative outcomes)
3. How is that evidence disseminated to other colleagues in the authority?
4. How and to which extent is the information used in the authority? For instance,
   a. In terms of design of care packages
   b. In terms of broader commissioning of services

CLOSURE

- We seem to have covered a great deal of information. But do you think there is anything we've missed out?
- Do you have any other comments about what we have discussed, or about the research as a whole?
- We will send you a summary of the research findings after April 2014. We would also like to invite you to a study workshop at the end of April.