Appendix C1

Completed methodology checklists: economic evaluations

Home care review questions 3.1, 3.2

Completed methodology checklists: economic evaluations

What approaches to home care planning and delivery are effective in improving outcomes for people who use services?

What are the significant features of an effective model of home care?

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Forder J, Malley J, Towers AM et al. (2013) Using cost-effectiveness estimates from survey data to guide commissioning: An application to home care. Health Economics 8: 979-992	
Guideline topic: Home care, Older People	
Economic priority area: Care planning approaches	**Q:** 2.1 parts 1 and 2
Checklist: Section 1	
Yes/No/Partly/ Not applicable	Detail
1.1 **Is the study population appropriate for the review question?**	
Yes	The study focused on older people (above 65) of which the large majority used home care; the study appeared to make appropriate use of data from people who received home care and other care services to derive generalizable conclusions about the cost effectiveness for different intensities of home care (at the margin). A distinction was made between different activity of daily living (ADL) groups in low, medium and high needs and varied characteristics of service users are confounded for.
1.2 Are the interventions appropriate for the review question?	
No	Study compared intensity of home care rather than different care planning or delivery approaches; there was no further detail about the type of home care provided. The study looked at home care as it was provided to older people in England (including varies qualities and home care practices).
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Yes	UK (England) based; it is indicated that the survey used for the data analysis was of a recent date based on citations and use of unit costs data from a 2011 source.
1.4 Are the perspectives clearly stated and what are they?	
Partly	It is stated that the perspective is the one of a local public payer and that this only related to cost-implications in terms of home care expenditure. Other public service costs (for example for residential care or health care) were not considered and the authors explain that this should be the subject of further research. Furthermore, the costs to individuals (including out-of-pocket expenditure and unpaid care) were not considered.
1.5 Are all direct effects on individuals included	
Partly	The Adult Social Care Outcomes Toolkit was used which is a comprehensive measure of social care-related quality of life; outcomes were confounded for a wide range of factors including ADL, informal care, long-term illness, disability allowance, etc. Effects on carers were not considered.
1.6 Are all future costs and outcomes discounted appropriately?	
Not applicable	Time periods of the survey were not specifically stated but findings were presented per week so that discounting was probably not necessary.
1.7 How is the value of effects expressed?	
Yes	In natural units and utility (via the ASCOT).

1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
No	Cost implications only considered home care expenditure.
General conclusion	
This study was concerned with methods for establishing cost effective intensities of home care for groups of older people generally; and those with high versus low/moderate needs. The study presented important economic evidence relevant to the overall topic but its contribution to answering questions about the cost-effectiveness of care planning and delivery approaches was limited. We therefore concluded that the study had limited applicability.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Gethin-Jones S (2012) Outcomes and well-being part 1: A comparative longitudinal study of two models of home care delivery and their impact upon the older person self-reported subjective well-being. Working with Older People 16:22-30	
Guideline topic: Home care, Older People	
Economic priority area: Care planning approaches	**Q:** 2.1
Checklist: Section 1	
Yes/No/Partly/ Not applicable	Detail
1.3 **Is the study population appropriate for the review question?**	
Partly	The study population included older people with critical (physical) needs who did not lack mental capacity including dementia. The study population was relatively small (n=40) and no further detail was provided how the study population was recruited.
1.4 Are the interventions appropriate for the review question?	
No	The intervention (approach) was not described in sufficient detail to derive conclusions about appropriateness and allow that findings could be generalised to a particular approach.
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Yes	The study took place in the UK (England); study year was not stated in this paper but it was likely that based on citations used in the paper that it was of a fairly recent date.
1.4 Are the perspectives clearly stated and what are they?	
No	The perspectives were not stated, but some costs were presented that were those of the local council's finance department. Further costs to the government such as those for residential care or the NHS were not considered. Costs to the individuals were not considered.
1.5 Are all direct effects on individuals included	
No	The authors reported that they used a range of outcome tools to capture physical health, wellbeing, social isolation and satisfaction. Effects on outcomes were reported with insufficient detail to derive a conclusion about their validity. Outcomes to carers were not considered.

1.6 Are all future costs and outcomes discounted appropriately?	
No	Because of low reporting quality it was not possible to say whether discounting was necessary; in one part of the article a period of 18 months was mentioned for the collection of cost data so that some indication of whether discounting was considered would have been necessary.
1.7 How is the value of effects expressed?	
No	Only individuals' concerns were presented. Scores from validated instruments were not presented.
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
No	There was no consideration of impact on unpaid carers.
General conclusion	
The study had very limited applicability because of a lack of detail about the type of intervention that was provided, a small sample size and non-random selection of the sample, and a generally low reporting quality.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Glendinning C, Challis D, Fernández J et al. (2008) Evaluation of the Individual Budgets Pilot Programme: Final Report. York: Social Policy Research Unit, University of York	
Guideline topic: Home care, Older People	
Economic priority area: Care planning approaches	**Q:** 2.1
Checklist: Section 1	
Yes/No/Partly/Not applicable	Detail
1.1 Is the study population appropriate for the review question?	
Partly	The study covered four client groups which receive publicly funded social care depending on their identified primary need or vulnerability. One of large group specifically addresses the need of older people. Most findings (but not all) were presented by client groups; it is possible that there were individuals >65yrs in not just the 'older people' group. Characteristics of older people in sample showed significant differences from national averages: needs – measured through abilities of daily livings (ADL) and mobility - were significantly greater in the study population and a higher proportion used home care more intensively (higher proportion of people using more than 10hrs/wk.)
1.2 Are the interventions appropriate for the review question?	
Partly	The intervention referred to providing to individuals with a choice for an individual budget but individuals in the intervention group could also opt for direct payments or conventional care (in the same way as the comparison group). In this paper this was considered in the analysis and in the presentation of findings for the subgroup which decided to take up individual budgets. Problematically, this group included individuals who did not always have a support plan in place by the time outcomes were measured.

1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Partly	The study was a large UK study of fairly recent date covering a wide range of localities. However, the study was concerned with the evaluation of a pilot and related to a time when individual budgets were introduced and tested. Since then the infrastructure for individual (personal) budgets has developed and some of the barriers of implementing individual (personal) budgets might have reduced. In addition, increasing financial pressures have led to stricter eligibility criteria and greater number of people who need to think about self-funded options.
1.4 Are the perspectives clearly stated and what are they?	
Partly	The perspective was not specifically stated but it was clear that a government perspective had been taken. A distinction was made between health and social care budgets. Costs to individuals (including carers) were not considered.
1.5 Are all direct effects on individuals included	
Partly	Health and wellbeing outcomes for individuals were captured comprehensively. Limitations were: First, the intervention group experienced delays in the assessment, resource allocation and support planning and a large number did not have an IB agreed, or their new support arrangements in place, by the time their six-month outcome interview was carried out. Of those who did, some had only had an IB in place for a short period. In short, the time horizon was not sufficient to capture all effects. Second, outcome tools were only applied at six months and not at baseline so that it was not possible to assess the change over time and the analysis assumed no baseline differences in outcomes (which is justifiable because of the randomisation but still presented a limitation). Third, outcomes to unpaid carers were not measured.
1.6 Are all future costs and outcomes discounted appropriately?	
Yes	Discounting was not applied because of short-term perspective (six months for outcomes; 12 months for costs).
1.7 How is the value of effects expressed?	
Yes	Natural units: Self-perceived health, GHQ-12, ASCOT, satisfaction.
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
Partly	Government perspective (health and social care) was taken; the costs of unpaid care and out-of-pocket expenditure was not included; it is not clear whether all voluntary services were included (no distinction between public and third sector provided services). Outcomes to carers were not captured in this analysis.
General conclusion	
The study provided relevant data to answer some aspects of cost-effectiveness for different home care packages. However, applicability was restricted because not all findings on costs and cost-effectiveness were presented specifically for the group of older people; the design of the study and implementation challenges meant that the evidence on outcomes referred to people who did not use individual budgets; the study was an evaluation of a national pilot that faced implementation challenges and this influenced the applicability of findings.	

Section 2: Study limitations (the level of methodological quality) This checklist should be used once it has been decided that the study is sufficiently applicable to the context of the social care guidance[a].	
2.1 Does the model structure adequately reflect the nature of the topic under evaluation?	
Not applicable	This was a cost effectiveness study alongside a randomised trial.
2.2 Is the time horizon sufficiently long to reflect all important differences in costs and outcomes?	
No	The time horizon was insufficient because individual budgets had not been implemented for all service users at the six month interview so that not all important differences in costs and effects could be captured.
2.3 Are all important and relevant outcomes included?	
Partly	See section 1.5
2.4 Are the estimates of baseline outcomes from the best available source?	
No	Baseline outcomes were not measured.
2.5 Are the estimates of relative intervention effects from the best available source?	
Yes	Estimates of effects were derived from RCT data.
2.6 Are all important and relevant costs included?	
Partly	Study took a government perspective and included the costs of health and social care services. However, there were likely to be important costs to individual (such as unpaid care and out-of-pocket expenditure) which were not considered.
2.7 Are the estimates of resource use from the best available source?	
Yes	A range of tools were applied to collect information on resource use comprehensively including from support plan records held by local authorities and self-reported questionnaires sent out to individuals asking about their service use over the past six months.
2.8 Are the unit costs of resources from the best available source?	
Yes	Unit costs for care planning are provided by local authority data and unit costs for other social and health care are taken from recommended national statistics of Personal Social Services and PSSRU compendium for unit costs in health and social care.
2.9 Is an appropriate incremental analysis presented or can it be calculated from the data?	
Yes	Incremental analysis was presented for two outcomes: GHQ and ASCOT.
2.10 Are all important parameters whose values are uncertain subjected to appropriate sensitivity analysis?	
Yes	Confidence intervals and bootstrapping.
2.11 Is there any potential conflict of interest?	
No	Although this study was funded by the Department of Health and was a national evaluation of a government programme, the researchers were independent (from different university-based research departments) so that it was overall unlikely that the findings were compromised by conflict of interest.
2.12 Overall assessment	
Minor limitations: The study was an overall relatively robust large study based on a RCT design and had an overall relatively high reporting quality.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Jones K, Netten A, Fernández JL et al. (2012) The impact of individual budgets on the targeting of support: Findings from a national evaluation of pilot projects in England. Public Money & Management 32:417-424	
Guideline topic: Home care, Older People	
Economic priority area: Care planning approaches	**Q:** 2.1
Checklist: Section 1	
Yes/No/Partly/Not applicable	Detail
1.3 **Is the study population appropriate for the review question?**	
No	The study covered four groups of people including older people. Findings were not presented for older people specifically.
1.4 Are the interventions appropriate for the review question?	
Partly	The intervention referred to providing to individuals with a choice for an individual budget but individuals in the intervention group could also opt for direct payments or conventional care (in the same way as the comparison group). In this paper this was considered in the analysis and presentation of findings for the subgroup which decided to take up individual budgets. Problematically, this group included individuals who did not always have a support plan in place by the time outcomes were measured.
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Partly	The study was a large UK study of fairly recent date covering a wide range of localities. However, the study was concerned with the evaluation of a pilot and related to a time when individual budgets were introduced and tested. Since then the system might have changed.
1.4 Are the perspectives clearly stated and what are they?	
Partly	The perspective was not specifically stated but it was clear that a government perspective had been taken. A distinction was made between health and social care budgets. Costs to individuals (including carers) were not considered in this study.
1.5 Are all direct effects on individuals included	
Not applicable	This study was a cost study. Outcomes were presented elsewhere (Glendinning et al 2008).
1.6 Are all future costs and outcomes discounted appropriately?	
Yes	No discounting was applied because of short-term perspective (six months for outcomes; 12 months for costs).
1.7 How is the value of effects expressed?	
Not applicable	This study was a cost study. Outcomes were presented elsewhere (Glendinning et al 2008).
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
Partly	Government perspective (health and social care) was taken; the costs of unpaid care and out-of-pocket expenditure were not included; we did get additional information on the costs of unpaid care from the author of this

	study which we included in the evidence table. It was not clear whether all voluntary services were included. Outcomes to carers were not captured in this analysis.
General conclusion	
The study provided relevant data to answer some aspects of cost-effectiveness for different home care packages. However, applicability was restricted because findings were not presented specifically for older people. The design of the study and implementation challenges meant that the evidence on outcomes referred to people who did not use individual budgets; the study was an evaluation of a national pilot that faced implementation challenges and this influenced the applicability of findings.	
Section 2: Study limitations (the level of methodological quality)	
This checklist should be used once it has been decided that the study is sufficiently applicable to the context of the social care guidance[a].	
2.1 Does the model structure adequately reflect the nature of the topic under evaluation?	
Not applicable	This was a cost study conducted alongside a randomised trial.
2.2 Is the time horizon sufficiently long to reflect all important differences in costs and outcomes?	
No	No, the time horizon was insufficient because individual budgets had not been implemented for all service users at the six month interview so that not all important differences in costs could be captured.
2.3 Are all important and relevant outcomes included?	
Partly	See section 1.5
2.4 Are the estimates of baseline outcomes from the best available source?	
Not applicable	This was a cost study.
2.5 Are the estimates of relative intervention effects from the best available source?	
Not applicable	This was a cost study.
2.6 Are all important and relevant costs included?	
Partly	Study took a government perspective and included the costs of health and social care services. However, there were likely to be important costs to individual (such as unpaid care and out-of-pocket expenditure) which were not considered. It was not clear whether all voluntary services were included.
2.7 Are the estimates of resource use from the best available source?	
Yes	A range of tools were applied to collect information on resource use comprehensively including from support plan records held by local authorities and self-reported service use from questionnaires.
2.8 Are the unit costs of resources from the best available source?	
Yes	Unit costs for care planning are provided by local authority data and unit costs for other social and health care are taken from recommended national statistics of Personal Social Services and PSSRU Compendium.
2.9 Is an appropriate incremental analysis presented or can it be calculated from the data?	
Not applicable	This was a cost study.
2.10 Are all important parameters whose values are uncertain subjected to appropriate sensitivity analysis?	
Not applicable	This study only analysed costs as captured through RCT. Analysis of differences in costs between the two groups was carried out appropriately through multivariate analysis, independent t-test, Analysis of Variance (ANOVA), and

	Generalised Linear Models (GLM).
2.11 Is there any potential conflict of interest?	
No	Although this study was funded by the Department of Health and was a national evaluation of a government programme, the researchers were independent (from different university-based research departments) so that it was overall unlikely that the findings were compromised by conflict of interests.
2.12 Overall assessment	
Minor limitations: The study was an overall relatively robust large study based on a RCT design and had an overall relatively high reporting quality.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Montgomery P, Mayo-Wilson E, Dennis J A et al. (2008) Personal assistance for older adults (65+) without dementia. Cochrane Database of Systematic Reviews: Reviews 2008; Issue 1.	
Guideline topic: Home care, Older People	
Economic priority area: Care planning approaches	**Q:** 2.1
Checklist: Section 1	
Yes/No/Partly/Not applicable	Detail
1.5 Is the study population appropriate for the review question?	
Partly	Older people 65+ requiring help to perform activities of daily living (ADLs). It was reported that they had higher needs than average home care users.
1.6 Are the interventions appropriate for the review question?	
Partly	Interventions (personal assistants) referred to high intensity home care only; the comparison groups in studies varied from 'usual care' to nursing home care and 'cluster care'; there was no study which included more than one comparison group.
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
No	All studies on which results were reported originated from the US which has an insurance based system that is not directly comparable to the UK. In addition, only one study (Carlson, 2007) was of a more recent date.
1.4 Are the perspectives clearly stated and what are they?	
Partly	Studies took different perspectives. Only one study (Sherwood, 1983) reported a comprehensive government perspective and included the costs of unpaid care. The most recent study (Carlson, 2007) took a narrow perspective of the insurance company. The other two studies only reported charges or hours of assistance provided.
1.5 Are all direct effects on individuals included	
Yes	A wide range of health and wellbeing outcomes were reported; including outcomes to informal carers by one study (Carlson et al. 2007).

1.6 Are all future costs and outcomes discounted appropriately?	
Partly	It appeared that discounting was not necessary because of short-term time horizons but in order to come to a final conclusion the original studies would need to be checked.
1.7 How is the value of effects expressed?	
	A range of different natural units were used.
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
No	One study of an old date measured a comprehensive range of costs (Sherwood 1983); not clear from this review whether this was done appropriately but the source is also old and findings were thus of very limited use.
General conclusion	
Limited application of this study to review question mainly because studies were from the US and only one was of recent date.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Netten A and Forder J (2007) The costs of what? Measuring services and quality of care. Social Policy and Society 6:397-409	
Guideline topic: Home care, Older People	
Economic priority area: Care planning approaches	**Q:** 2.1 parts 1 and 2
Checklist: Section 1	
Yes/No/Partly/Not applicable	Detail
1.7 **Is the study population appropriate for the review question?**	
Yes	Older people who used home care with some overrepresentation of those who used intensive home care; no consideration was given to specific sub groups.
1.8 Are the interventions appropriate for the review question?	
Partly	Intensities of home care were compared to identify the optimal intensity (cost) of home care for individuals with different levels of need but the findings do not differentiate between home care approaches or types or components of home care.
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Partly	Data sources were from the UK (England) but were not of recent date. There was no further detail about the source of unit cost data so that it was not clear to which price level the study referred to.
1.4 Are the perspectives clearly stated and what are they?	
No	The perspective reflected the one of the payer for publicly funded home care although this was not specifically stated; there was not sufficient detail to understand whether additional Personal Social Services (PSS) were included if they were provided as part of the care packages; the impact on other government cost (e.g. residential care, health care) was not considered. Costs to individuals in the form of out-of-pocket expenditure and of unpaid care were also not considered.

1.5 Are all direct effects on individuals included	
Partially	Outcome measures captured social care-related quality of life domains (similar to the ones used in ASCOT) and data on satisfaction. Mental and physical health outcomes were not captured and outcomes to carers were not included.
1.6 Are all future costs and outcomes discounted appropriately?	
Not applicable	Time periods of the survey were not specifically stated but findings were presented per week so that discounting was probably not necessary.
1.7 How is the value of effects expressed?	
Partly	The study explored the use of capacity to benefit weights (as a new measure of utility). This reflected a new approach that still required further validation so that values of effects need to be interpreted with care.
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
No	Costs only refer to home care and wider outcomes (health, mental health) and outcomes to carers were not included.
General conclusion	
This study was concerned with developing a new approach for estimating welfare gain from government expenditure in social care; this study design was limited in its usefulness for our review question. The study had limited applicability for the review question.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: PSSRU (2014) Technical report for NICE Home care Guideline development [unpublished]	
Guideline topic: Home care, Older People	
Economic priority area: Care planning approaches	**Q:** 2.1 parts 1 and 2
Checklist: Section 1	
Yes/No/Partly/Not applicable	Detail
1.9 **Is the study population appropriate for the review question?**	
Yes	The study focused on older people (above 65) using social care of which the vast majority were living in their own homes and approximately 60% were using publicly funded home care or personal assistant services; sub groups of older people with different needs and characteristics (including cognitive impairment) were considered. The study did not include self-funders.
1.10 Are the interventions appropriate for the review question?	
Partly	The study examined different care planning or delivery approaches and components of care packages (home care being one of them) and explored how home care interacted with other services. So the scope of this study was broader than home care itself and looked at how home care operated in the context of other social care services planned as part of a care package and provided at the person's home or in the community. The study looked at

	home care packages as they were provided in a sample of English councils (including varies qualities and practices).
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Partly	The study was UK (England) based and took place between 2005 and 2007.
1.4 Are the perspectives clearly stated and what are they?	
Partly	It is stated that the perspective is a public sector one and considered health and social care costs. It is likely that this captured the public sector perspective adequately for this particular population. Wider societal perspective was not considered.
1.5 Are all direct effects on individuals included	
Partly	Two standardised outcome tools were used: One was the General Health Questionnaire which measured psychological wellbeing and the second one was the Adult Social Care Outcomes Toolkit which is a comprehensive measure of social care-related quality of life; outcomes were confounded for a range of personal characteristics and needs; effects on carers were not considered; the time horizon was too short to capture all important effects.
1.6 Are all future costs and outcomes discounted appropriately?	
Yes	Discounting was not necessary because costs and outcomes were only measured over a period of 6 to 12.
1.7 How is the value of effects expressed?	
Yes	In natural units.
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
Partly	It is likely that public sector costs were captured adequately. However, unpaid care costs were not considered and this was likely to be an important cost factor. Furthermore, long- term aspects such as potential impact of home care on the risk of care home admission and associated costs cost of care home were not be captured due to the short-term time horizon.
General conclusion	
This study is applicable to the review question with some limitations.	
Section 2: Study limitations (the level of methodological quality)	
This checklist should be used once it has been decided that the study is sufficiently applicable to the context of the social care guidance[a].	
2.1 Does the model structure adequately reflect the nature of the topic under evaluation?	
Yes	Production and cost functions inferred the counterfactual effect on outcome and/or cost of home care (or one particular approach to home care) using multiple regression methods; the influence of a wide range of variables (personal characteristics, needs, other service use) were considered.
2.2 Is the time horizon sufficiently long to reflect all important differences in costs and outcomes?	
No	The time horizon was insufficient because individual budgets had not been implemented for all service users at the 6 month interview so that not all important differences in costs and effects could be captured. The cost effectiveness of different home care approaches might be influenced by the impact it had on care home

	admission and mortality which would require a longer time horizon.
2.3 Are all important and relevant outcomes included?	
Partly	See section 1.5
2.4 Are the estimates of baseline outcomes from the best available source?	
No	Baseline outcomes were not measured.
2.5 Are the estimates of relative intervention effects from the best available source?	
Yes	Estimates of effects were derived from RCT data.
2.6 Are all important and relevant costs included?	
Partly	Study took a government perspective and included the costs of health and social care services. However, there were likely to be important costs to individual (such as unpaid care and out-of-pocket expenditure) which were not considered.
2.7 Are the estimates of resource use from the best available source?	
Yes	A range of tools were applied to collect information on resource use comprehensively including from records and self-reports.
2.8 Are the unit costs of resources from the best available source?	
Yes	Unit costs for care planning were provided by local authority data and unit costs for other social and health care were taken from recommended national statistics of Personal Social Services and PSSRU compendium for unit costs in health and social care.
2.9 Is an appropriate incremental analysis presented or can it be calculated from the data?	
Yes	Incremental analysis was carried on the GHQ, which was significantly (positively) influenced by home care.
2.10 Are all important parameters whose values are uncertain subjected to appropriate sensitivity analysis?	
Not applicable	Sensitivity analysis was not applicable but all values were reported with their statistical significance (p-values).
2.11 Is there any potential conflict of interest?	
No	The study was carried out by PSSRU as part of the economic review work for the National Collaborating Centre for Social Care.
2.12 Overall assessment	
Minor limitations: the study was an overall relatively robust analysis of the data; conclusions were limited mainly because outcomes were only assessed at one time point and there were some problems because data had been collected using varied sources.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Windle K, Wagland R, Forder J et al. (2009) National Evaluation of Partnerships for Older People Projects: Final Report. PSSRU Discussion Paper 2700, University of Kent.	
Guideline topic: Home care, Older People	
Economic priority area: Emotional and social support interventions	**Q:**1.1.1, 2.1.1, 2.1.2., 2.2
***Checklist, Section 1*:** *Applicability (relevance to specific guideline review question(s) and the NICE reference case) This checklist should be used first to filter out irrelevant studies.*	
Yes/No/Partly/Not applicable/ Unclear	Detail
1.11 Is the study population appropriate for the review question?	
Yes	Vast majority were older people above the age of 65 years with a mean age of 75 years. Cost-effectiveness results were not presented by different sub groups of service users but qualitative analysis explored barriers for certain sub groups such as black and minority ethnic groups.
1.12 Are the interventions appropriate for the review question?	
Partly	The study evaluated a wide number of different projects, two thirds of which were 'community facing' and a large proportion of those (n=16), were projects that provided emotional and social support
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Yes	The study was carried out in a large number (n=29) of localities in England; the study was carried out 5 years ago; it is unlikely that political changes would affect the findings that relate to this type of support.
1.4 Are the perspectives clearly stated and what are they?	
Partly	The study captured outcomes to individuals; costs of the intervention (government perspective) as well as impact on wider resource use relevant to the government perspective was captured; although not all costs were incorporated into the final cost effectiveness results. Costs to the individual (for example in the form of out-of-pocket expenditure) were not captured.
1.5 Are all direct effects on individuals included	
Partly	Health outcomes to individuals were captured through different questionnaires including the EQ-5D. A much wider range of outcomes were examined outside of the cost-effectiveness analysis including service users' satisfaction and carers' outcomes. Questionnaires on health outcomes used for the cost-effectiveness analysis were applied at two time points capturing the change in effects over three to six months; it is possible that effects might increase or decrease after this time.
1.6 Are all future costs and outcomes discounted appropriately?	
Not applicable	Costs and outcomes were captured over a period of less than 12 months.
1.7 How is the value of effects expressed?	
Yes	Utility measured via the EQ-5D.

1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
Partly	The CSRI was applied to capture a wide range of public service use. However, final cost effectiveness results only reflect health outcomes to individuals and costs to the local authorities for paying the support and cost savings to the NHS linked to a reduction in emergency bed days in localities in which the projects were running. The value of unpaid care was captured but carers' outcome were explored outside the cost-effectiveness analysis.
General conclusion	
Broadly applicable.	
Section 2: Study limitations (the level of methodological quality)	
This checklist should be used once it has been decided that the study is sufficiently applicable to the context of the social care guidance[a].	
2.1 Does the model structure adequately reflect the nature of the topic under evaluation?	
Not applicable	This was an evaluation study.
2.2 Is the time horizon sufficiently long to reflect all important differences in costs and outcomes?	
Partly	See section 1.5. It is possible that effects could increase or decrease after the time period that was captured; costs of running the projects were captured over several years which appeared to be an appropriate time period to capture the costs of running the different projects (some of which took some time to be set up).
2.3 Are all important and relevant outcomes included?	
No	See section 1.5. In addition, the effects emotional and social support was not well captured with the EQ-5D and it would have been beneficial to have a tool that captured psychological wellbeing (for example, using the GHQ).
2.4 Are the estimates of baseline outcomes from the best available source?	
Yes	Outcomes were assessed at baseline.
2.5 Are the estimates of relative intervention effects from the best available source?	
Yes	Relative intervention effects were derived from a national health survey and longitudinal study and appropriate detail of the method and limitations are provided.
2.6 Are all important and relevant costs included?	
Partly	See section 1.4
2.7 Are the estimates of resource use from the best available source?	
Partly	The sources are appropriate: The Client Service Receipt Inventory (CSRI) was applied to capture resource use; projects' costs were derived from activity and budget data and emergency bed use was calculated from a comparison between sites that did and did not participate in the study. However, there were problems in collecting the data and this led to substantial limitations in the final estimates.
2.8 Are the unit costs of resources from the best available source?	
Yes	National tariff 08/09 and PSSRU Unit costs for health and social care 2006 and 2008.
2.9 Is an appropriate incremental analysis presented or can it be calculated from the data?	
Yes	The incremental cost effectiveness ratio is presented using the QALY and findings are presented for different

	willingness-to-pay thresholds.
2.10 Are all important parameters whose values are uncertain subjected to appropriate sensitivity analysis?	
Yes	Sensitivity analysis is carried for a wide range of willingness-to-pay thresholds and estimates for emergency bed days.
2.11 Is there any potential conflict of interest?	
No	The research was a national evaluation of government pilot programme which could potentially lead to some conflict of interest and funded by the Department of Health; the researchers were, however, from independent research institutions.
2.12 Overall assessment	
Minor limitations: the study design had some limitations (which were reflected in data collection problems) and an overall high reporting quality; the findings can be used to inform cost-effectiveness recommendations.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Woolham J and Benton C (2012) The costs and benefits of personal budgets for older people: Evidence from a single local authority. British Journal of Social Work 1-20.		
Guideline topic: Home care, Older People		
Economic priority area: Care planning approaches	**Q:** 2.1	
Checklist: Section 1		
Yes/No/Partly/Not applicable	Detail	
1.13 **Is the study population appropriate for the review question?**		
Partly	The study covered different care groups but most findings were presented specifically for older people (above 65yrs); no further sub groups within the group of older people were considered.	
1.14 Are the interventions appropriate for the review question?		
Partly	The study examined the cost-effectiveness of personal budgets compared to 'traditional' arrangements; no detail was provided on the type of home care or care packages that older people were using.	
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?		
Partly	The study was carried out in one London local authority only was of a recent date.	
1.4 Are the perspectives clearly stated and what are they?		
Partly	The perspective was not specifically stated; costs only included those that occurred to the local authority for adult social care services. Costs to individuals (including carers) or other government departments (such as health) were not considered.	
1.5 Are all direct effects on individuals included		
Partly	Two outcomes measures were applied which captured abilities of daily living and psychological wellbeing; wider aspects of social care such as social support, control, occupation were not captured; impact on carers was not	

	measured; outcomes were only measured at one point in time and it was not clear how long individuals had been using their budget for so that it is difficult to say whether all direct effects had been captured.
1.6 Are all future costs and outcomes discounted appropriately?	
Yes	Discounting was not applied because of short-term perspective; cost data refer to a year or less and data on outcomes were evaluated at one time point.
1.7 How is the value of effects expressed?	
Yes	Natural units: GHQ-12, abilities of daily living.
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
No	Only costs to the local authority in the form of adult social care costs were included; costs to other government departments, the costs of unpaid care and out-of-pocket expenditure were not included; it is not clear whether all voluntary services were included; outcomes to carers were not captured in this analysis.
General conclusion	
The study was not sufficiently applicable to the review question mainly because the questions did not provide detail on home care and care packages and only captured costs from an adult social care perspective. Findings can only indirectly be used to inform recommendations under the scope more generally.	

Home Care Review question 6.1

Completed methodology checklists: economic evaluations

What elements of telecare that could be used in planning and delivering home care are effective in improving outcomes for people who use services and their carers?

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Beale S, Sanderson D, Kruger J (2009) Evaluation of the Telecare Development Programme: Final report. Edinburgh: Joint Improvement Team, produced for the Scottish Government	
Guideline topic: Home care, Older People	
Economic priority area: Telecare	**Q:** 2.5.1
Checklist, Section 1: *Applicability (relevance to specific guideline review question(s) and the NICE reference case) This checklist should be used first to filter out irrelevant studies.*	
Yes/No/Partly/Not applicable/Unclear	Detail
1.15 Is the study population appropriate for the review question?	
Partly	Vast majority (about 85%) were older people; no further detail was presented on characteristics or sub groups; or representativeness of sample with study population.
1.16 Are the interventions appropriate for the review question?	
Partly	The intervention referred to telecare as provided as part of a national programme; most individuals were provided with telecare for the first time, whilst about a quarter of them used already some form of telecare (such as alarm systems) and were provided with more enhanced types of telecare. The analysis only refers to telecare overall and no further distinction is made between the different types of telecare.
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Yes	The study was carried with 32 Scottish partnership and is of fairly recent date.
1.4 Are the perspectives clearly stated and what are they?	
Not applicable	This study aimed to estimate potential cost savings to the health and social care budgets; it did not incorporate the costs of telecare and is limited to categories of service outcomes that were thought to be influenced by telecare. The perspectives of service users and carers are incorporated through a survey on self-perceived health and wellbeing outcome; costs to individuals were not considered.
1.5 Are all direct effects on individuals included	
No	Service user and carers outcomes are collected via questionnaires by the different partnerships; sometimes the questionnaires were sent out and a few partnerships decided to include them in their routine data monitoring; the study did not track the questionnaires sent out so that it is not possible to come to conclusions about representativeness of the results on effects. Positively, most users had been using the telecare intervention for at least a number of months by the time they filled in the questionnaire. However, outcomes were not captured comprehensively through standardised tools so that it is unlikely that health and wellbeing effects to individuals were captured adequately. The weakness of the study design makes it less likely that any observed changes in effects could be linked to the use of telecare.

1.6 Are all future costs and outcomes discounted appropriately?	
Not applicable	The time period relates to 12 months only.
1.7 How is the value of effects expressed?	
No	Natural units.
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
No	Some self-perceived carers' outcomes were included but the evaluation design for collecting costs and outcomes was generally inappropriate (section 1.4, 1.5.).
General conclusion	
Insufficiently applicable.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Clifford P, Padda K, Brown O et al. (2012) Investing to save: Assessing cost-effectiveness of telecare. FACE Recording and Measurement Systems Ltd.	
Guideline topic: Home care, Older People	
Economic priority area: Telecare	**Q:** 2.5.1
Checklist, Section 1: *Applicability (relevance to specific guideline review question(s) and the NICE reference case) This checklist should be used first to filter out irrelevant studies.*	
Yes/No/Partly/Not applicable/Unclear	Detail
1.17 Is the study population appropriate for the review question?	
Partly	The study population was older people of which 72 per cent were female. There were no further characteristics provided (age, ethnicity, etc.) and from which councils the data were drawn from. A distinction is made between different needs including severities of needs and a table provides further information about different long term conditions, with arthritis being the most prevalent and most likely group to benefit from telecare followed by diabetes (which appears to indicate greater potential savings for these groups.
1.18 Are the interventions appropriate for the review question?	
Partly	It is only stated that telecare solutions were provided and no further detail about the type of telecare.
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Yes	The study was carried out in the UK and was of recent date.
1.4 Are the perspectives clearly stated and what are they?	
Not applicable	This study is a cost savings study which looks at savings to councils from a social care budget perspective. Cost savings are estimated based on valuing unpaid care following a replacement cost approach assuming that if telecare were not provided that this would have been replaced with some form of social care.
1.5 Are all direct effects on individuals included	

Not applicable	This study measured cost savings only.
1.6 Are all future costs and outcomes discounted appropriately?	
Not applicable	The study estimated weekly cost savings.
1.7 How is the value of effects expressed?	
Not applicable	The study measured cost savings only.
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
No	This study does not evaluate costs and outcomes; instead it looks at potential cost savings based on estimated differences in case record scores of need and restrictions for the same individuals with and without telecare. It then assigned monetary values to those changed scores: (1) social care budgets and (2) other cost savings from reduced impact on unpaid care (valued following a replacement method); whilst (1) the detail of the numbers and calculations are not presented and (2) the calculations are based on many assumptions. It is not possible to confirm the correctness of the calculations based on the findings that are presented; often additional detail would have been required and there are inconsistencies in the reported data. For example it is not possible to assess the estimated change in weekly budgets with and without telecare (before other cost savings are considered). This figure could have been used as a more robust, minimum estimate.
General conclusion	
The study is insufficiently applicable mainly due: type of study (no comparison group), low reporting quality and lack of detail on the intervention.	

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Henderson C, Knapp M, Fernández JL et al. (2014) Cost-effectiveness of telecare for people with social care needs: The Whole Systems Demonstrator cluster randomised trial. Age and Ageing 0:1-7	
Guideline topic: Home care, Older People	
Economic priority area: Telecare	**Q*:*** 2.5.1
***Checklist, Section 1*:** *Applicability (relevance to specific guideline review question(s) and the NICE reference case) This checklist should be used first to filter out irrelevant studies.*	
Yes/No/Partially/Not applicable/ Unclear	Detail
1.19 Is the study population appropriate for the review question?	
Partly	The study population included individuals with social care needs. It is not specifically stated that the study population were only older people, but average age was 74 years and only a small proportion (23%) were under 65 years; some people with cognitive impairment were excluded from this trial (if they had been assessed as not being able to complete the questionnaire on their own). As noted by the authors themselves as a study limitation, there was no differentiation in this paper between users with certain characteristics although it was likely that some groups benefitted more (e.g. those with greater willingness to use telecare) and others were likely to be linked to higher costs (e.g. those that may require additional support).
1.20 Are the interventions appropriate for the review question?	
Partly	The intervention was a second generation telecare package plus standard care and the comparison was standard care; standard care in both arms included first generation telecare. There is currently no established alternative best practice so that the choice of interventions seems appropriate. Further detail would be required in particular in regards to the kind of support that was provided to support individuals and carers in using telecare in order to come to conclusions about generalizability to telecare more broadly. Furthermore, generalizability of findings could be restricted – as the authors concede – due to different assessment practices of local authorities which influences the type of telecare package that gets implemented. However, considering it was a multi-centre study it is likely that the same practice is applied in at least some areas in England.
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Yes	The study was carried out in different English localities and is of very recent date.
1.4 Are the perspectives clearly stated and what are they?	
Partly	It is stated that the perspective is of the health and social care sector. This public sector perspective has clear limitations: As noted by the authors themselves, other potentially important costs such as those born to the individuals and their families in the form of charges or for privately purchased equipment as well as the costs of unpaid (informal) care were not included.

1.5 Are all direct effects on individuals included	
Partly	In this paper only health outcomes measured via the EQ-5D were considered. The choice of outcome measure/tool is justified because it is a comprehensive tool that measures relevant dimensions such as pain, anxiety/depression, self care, usual activities and mobility and has proven validity for use with older people population. However, as the authors note themselves there may be other benefits to the individual and their carers that would be important to consider such as those that relate to wider wellbeing and social care needs. The period of 12 months is appropriate to capture short-to medium term health outcomes; for longer-term outcomes (mortality, care home admission) the authors refer to other research of the same intervention which suggested that these were not affected.
1.6 Are all future costs and outcomes discounted appropriately?	
Not applicable	The time period relates to 12 months and discounting was not necessary.
1.7 How is the value of effects expressed?	
Yes	Value is expressed in units of utility that which are captured through preference-weighted health-related quality of life (via EQ-5D).
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
Partly	Costs and outcomes to unpaid carers as well as out-of-pocket expenditure to individuals and their families were not considered.
General conclusion	
The study is broadly (=partially) applicable; generalizability of findings on cost-effectiveness are mainly restricted by a lack of analysis of inter-individual differences and the exclusion of costs and outcomes for carers and out-of-pocket expenditure born by the individual.	
Section 2: Study limitations (the level of methodological quality) This checklist should be used once it has been decided that the study is sufficiently applicable to the context of the social care guidance[a].	
2.1 Does the model structure adequately reflect the nature of the topic under evaluation?	
Not applicable	This was a cost effectiveness study alongside a cluster randomised trial.
2.2 Is the time horizon sufficiently long to reflect all important differences in costs and outcomes?	
Partly	See section 1.5. It is possible that certain benefits might accrue after the period of 12 months (including those to unpaid carers). However, the authors do refer to other research on this intervention which showed that long-term outcomes such as mortality or care home admission did not seem affected.
2.3 Are all important and relevant outcomes included?	
No	See section 1.5. There could be potentially adverse effects for certain groups.
2.4 Are the estimates of baseline outcomes from the best available source?	
Yes	Outcomes were assessed at baseline as part of the trial.
2.5 Are the estimates of relative intervention effects from the best available source?	
Yes	Relative intervention effects taken from the trial.

2.6 Are all important and relevant costs included?	
Partly	Considered in section 1.4.
2.7 Are the estimates of resource use from the best available source?	
Yes	The Client Service Receipt Inventory (CSRI) was applied at several time points, through interviews and postal survey.
2.8 Are the unit costs of resources from the best available source?	
Yes	Unit costs for care planning are provided by local authority data and unit costs for other social and health care are taken from recommended national statistics of Personal Social Services and PSSRU Compendium.
2.9 Is an appropriate incremental analysis presented or can it be calculated from the data?	
Yes	The incremental cost effectiveness ratio is presented using the QALY and findings are presented for different willingness-to-pay thresholds and cost scenarios.
2.10 Are all important parameters whose values are uncertain subjected to appropriate sensitivity analysis?	
Yes	The cost of the intervention both in terms of equipment costs and support costs were varied to test impact on findings.
2.11 Is there any potential conflict of interest?	
No	The research was carried out as part of the Whole System Demonstrator project funded by the Department of Health. The research was carried out by independent researchers from several academic institutions.
2.12 Overall assessment	
Minor limitations: The study is overall relatively robust study that is based on a RCT design and has overall a relatively high reporting quality.	

Home care review questions 7.1, 7.2

Completed methodology checklists: economic evaluations

What information and support is helpful to people seeking access to home care services?

What information and support should be provided to people who use home care services to enable them to be aware of their options, and play a full role in reviewing their care and making decisions?

APPENDIX C: COMPLETED METHODOLOGY CHECKLISTS: ECONOMIC EVALUATIONS

Study identification: Windle K, Wagland R, Forder J et al. (2009) National Evaluation of Partnerships for Older People Projects: Final Report. PSSRU Discussion Paper 2700, University of Kent.	
Guideline topic: Home care, Older People	
Economic priority area: Information and support for people seeking access to, and receiving home care	**Q:**3 parts 1 and 2
Checklist, Section 1: *Applicability (relevance to specific guideline review question(s) and the NICE reference case) This checklist should be used first to filter out irrelevant studies.*	
Yes/No/Partly/Not applicable/ Unclear	Detail
1.21 Is the study population appropriate for the review question?	
Yes	Vast majority were older people above the age of 65 years with a mean age of 74 years. Cost-effectiveness results were not presented for different sub groups of service users; a small number of projects were black and minority ethnic groups specific; qualitative analysis explored some of the barriers that certain sub groups experienced in particular black and minority ethnic groups (if projects were not specifically targeted at this group).
1.22 Are the interventions appropriate for the review question?	
Partly	The study evaluated a large number of different projects, two third of which were 'community facing' and a small proportion (n=5) were projects that provided information, signposting and access. Interventions included those that were provided in a person's home as part of their care planning or on-going support or those that were provided as drop-in services.
1.3 Is the current social care system in which the study was conducted sufficiently similar to the current UK social care context?	
Partly	The study was carried out in a large number (n=29) of localities in England; however, the study was carried out five years ago and it is possible that political changes, in particular the introduction of new regulations in this area (i.e. obligation for councils to provide information to self-funders about home care and care home options) mean that the context in which the study was carried out is less relevant to the current environment.
1.4 Are the perspectives clearly stated and what are they?	
Partly	The study captured outcomes to individuals and costs of the intervention as well as the costs of health and social care. The perspective is thus the one of government although this was not specifically stated and not all costs were incorporated into the final cost effectiveness results. In addition, costs to the individual (for example in the form of out-of-pocket expenditure) were not captured.
1.5 Are all direct effects on individuals included	
Partly	Health outcomes to individuals were captured through different questionnaires including the EQ-5D. A much wider range of outcomes were examined outside of the cost-effectiveness analysis including service users'

	satisfaction and carers' outcomes. Questionnaires on health outcomes were applied at two time points capturing the change in effects over three to six months; it is possible that effects might increase or decrease after this time.
1.6 Are all future costs and outcomes discounted appropriately?	
Yes	Discounting was not necessary because costs and outcomes were captured over a period of less than 12 months.
1.7 How is the value of effects expressed?	
Yes	Health utility was measured via the EQ-5D.
1.8 Are costs and outcomes from other sectors (including the value of unpaid care, where relevant) fully and appropriately measured and valued?	
Partly	The Client Service Receipt Inventory (CSRI) was applied to capture public service use. However, final cost effectiveness results only reflected health outcomes to individuals and costs of the intervention (that accrued to councils) and cost savings to the NHS (linked to a reduction in emergency bed days). The value of unpaid care was not captured; carers' outcomes were evaluated separately (not as part of the economic analysis).
General conclusion	
Broadly applicable to information and support services for older people provided as part of home care planning although findings also related to other types of information and support.	
Section 2: Study limitations (the level of methodological quality) This checklist should be used once it has been decided that the study is sufficiently applicable to the context of the social care guidance[a].	
2.1 Does the model structure adequately reflect the nature of the topic under evaluation?	
Not applicable	This was an evaluation study.
2.2 Is the time horizon sufficiently long to reflect all important differences in costs and outcomes?	
Partly	See section 1.5. It is possible that effects could increase or decrease after the time period captured in the analysis; costs of running the projects were evaluated over several years which appeared to be an appropriate time period in order to capture the costs of running the different projects (some of which took some time to set up).
2.3 Are all important and relevant outcomes included?	
No	See section 1.5.
2.4 Are the estimates of baseline outcomes from the best available source?	
Yes	Outcomes were assessed at baseline.
2.5 Are the estimates of relative intervention effects from the best available source?	
Yes	Relative intervention effects were derived from a national health survey and longitudinal study, and appropriate detail of the method and limitations were provided.
2.6 Are all important and relevant costs included?	
Partly	See section 1.4

2.7 Are the estimates of resource use from the best available source?	
Partly	The sources were appropriate: The Client Service Receipt Inventory (CSRI) was applied to capture resource use; projects' costs were derived from activity and budget data. In addition, cost savings from a reduction in emergency bed use was calculated from a comparison between study sites and other localities that did not participate in the study. However, there were problems in data collection and only limited data were available to calculate costs.
2.8 Are the unit costs of resources from the best available source?	
Yes	National tariff 08/09 and PSSRU Unit costs for health and social care 2006 and 2008.
2.9 Is an appropriate incremental analysis presented or can it be calculated from the data?	
Yes	The incremental cost effectiveness ratio is presented using QALY and findings were presented for different willingness-to-pay thresholds; not all costs were included in the cost-effectiveness findings (see 1.8).
2.10 Are all important parameters whose values are uncertain subjected to appropriate sensitivity analysis?	
Yes	Sensitivity analysis was carried for a wide range of willingness-to-pay thresholds and for estimates of reductions in emergency bed days.
2.11 Is there any potential conflict of interest?	
No	The research was a national evaluation of government pilot programmes funded by the Department of Health which could potentially lead to some conflict of interest and; the researchers were, however, from independent research institutions.
2.12 Overall assessment	
Minor limitations: The study design had some limitations (in particular data collection problems) but an overall high reporting quality; with some caution the findings can be used to inform cost-effectiveness recommendations.	

Home care review questions 3.1, 3.2

Economic evidence table

What approaches to home care planning and delivery are effective in improving outcomes for people who use services?

What are the significant features of an effective model of home care?

Forder J, Malley J, Towers AM et al. (2013) Using cost-effectiveness estimates from survey data to guide commissioning: An application to home care. Health Economics 986: 965-986

Country, study type and intervention details.	**Study population, design and data sources.**	**Costs: description and values.** **Outcomes: description and values.**	**Results: Cost-effectiveness.**	**Summary.**
Country: United Kingdom. **Study type:** Cost-effectiveness (utility). **Intervention:** Home care was measured at different intensities (current intensity versus alternative intensities). **Control:** Comparison group was imputed (see study design).	**Population:** Older people (aged over 65 years) using community-based long-term care services, mainly home care. **Study design:** Production function/extrapolation method; compares cost-effectiveness ratios at different intensities of home care. **Data sources:** National user experience and follow-up survey of older people; ten councils took part in follow-up; N=778, producing 301 (53%) interviews. **Sources of effectiveness data:** Measure of social care-related quality of life (the ASCOT) included in survey. **Sources of resource use data:** From survey. **Sources of unit cost data:** England-average unit costs from NHS Information Centre for Health and Social Care 2011.	**Outcomes: description and values** ASCOT: Total effect at mean intensity (=cost) for all (ADL) needs groups was 0.2, and 0.31 (0.15) for the high (low/moderate) needs group. **Costs: description and values** England-average unit cost figures were applied to reported service use in the survey. Mean cost of home care (all needs): • £96 per week. • £33 of those for other services such as day care, meals and equipment. Mean costs for high (moderate/low) needs groups: £159 (£69).	The ICER at a mean cost was £50,011 for all groups and £53,205 (£35,146) for high (moderate/low) needs groups. Optimal provision for all needs groups: £35 per week (lb £15; ub £61) at the £30,000 (£20,000; £40,000) threshold. Optimal provision for high needs groups averaged £51 (lb £23; up £90); and £28 (lb £12; ub £49) for low/moderate needs groups. **Uncertainty:** Bootstrapping, Log and square root specification; continuously updated generalised method of moments (CUE) estimator.	**Applicability:** Limited applicability. **Quality:** We did not assess the quality in detail because the study was of limited applicability, however reporting quality was relatively high and the study design appeared strong. **Summary:** The study did not help to answer the review question but findings could be used to inform the guideline more generally. On request of the GDG we checked national cost data to assess whether values in 2011 prices were still applicable and this was the case.

Gethin-Jones S (2012) Outcomes and well-being part 1: A comparative longitudinal study of two models of home care delivery and their impact upon the older person self-reported subjective well-being. Working with Older People 16: 22-30

Country, study type and intervention details.	**Study population, design and data sources.**	**Costs: description and values.** **Outcomes: description and values.**	**Results: Cost-effectiveness.**	**Summary.**
Country: United Kingdom. **Study type:** Evaluation of costs and outcomes. **Intervention:** Only a general description of outcome-focused and task-based care models in the United Kingdom was provided which stated that outcomes were agreed between the social worker and the service user; this included some choice by the service user about how the given time should be spent. **Control:** The comparison was described as 'task based' and that included allocated time slots for physical care.	**Population:** Older people aged over 65 years assessed with critical and substantial (physical) care needs. Individuals were excluded from the study if they lacked mental capacity including people with dementia. Mean age: 76.5yrs. Female (n=23) and male (n=17) **Study design:** No information provided on how the sample was recruited or any other detail about study design. It is only reported that the sample size consisted initially of N=69 participants and the final sample size was reduced to N=40, with IG (n=20) and CG (n=20). **Data sources:** 40 questionnaires applied to collect outcome data (no further detail provided). Information about time spent with service users from council's finance department for 6 individuals who received care	**Outcomes: description and values** • Physical health and wellbeing measured with instruments derived from SF-36 questionnaire: Measure Yourself Medical Outcomes Profile (MYMOP, Paterson, 1996); Measure Yourself Concerns and Wellbeing (MYCW, Paterson et al. 2007). • Additional questions were asked on social isolation and service satisfaction. The distribution of physical health problems (measured via MYMOP) is reported as similar between the groups but numbers not provided; the authors concluded that groups were 'comparable'. Authors report a 'strong' link between subjective wellbeing (measured via MYCW) and the type of approach individuals receive; they report that they used statistical analysis (ANOVA); no values were reported. Individuals' concerns (measured through open question via MYCW) were presented and compared in four categories; inability to go out (IG n=10; CG n=10), loneliness (IG n=7; CG n=9), inability to care for self or others (IG n=7; CG=8), other (IG n=5; CG=4). **Costs: description and values** The mean time spent with service users (from council's finance department) presented in graph form only: IG: circa 28 hours at start and 25 hours at end of intervention period; CG: circa 28 hours at start and 31 hours at the end of period. Allocated and actual time spent with individuals per visit	No combined values or explanation to cost effectiveness were presented. The authors concluded that there was an improvement in subjective wellbeing and that the amount of human contact time was greater in the IG (and that this did not lead to a more expensive service).	**Applicability:** Not applicable. **Quality:** The study had low quality of reporting which impacted on validity of findings. **Summary:** Findings of this study cannot be used to inform recommendations.

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
	packages over period of at least 18 months and from time sheets completed by home care workers for 8 individuals (IG n=4; CG n=4).	(derived from time sheets): Allocated time, IG 4hrs (n=2), 3hrs (n=2); CG 4hrs (n=3), 3hrs (n=1); actual time, IG 3hrs (n=2), 4hrs (n=1), 5hrs (n=1); CG 1.5hrs (n=1), 2hrs (n=1), 2.5hr (n=2). It is reported that CG is 17 per cent more expensive (figure provided by finance department, no further detail).		

Glendinning C, Challis D, Fernández J et al. (2008) Evaluation of the Individual Budgets Pilot Programme: Final Report. York: Social Policy Research Unit, University of York

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
Country: United Kingdom. **Study type:** Cost-effectiveness analysis. **Intervention:** Choice of individual budgets (IB). **Control:** Standard care (including direct payments).	**Population:** People eligible for adult social care; four groups: people with mental health problems, with physical disability, with learning disability, older people. Mean age of older people: 81 years; 66% female; 5% black and ethnic minority groups. **Study design:** Multi-method including multi-site RCT design (N=1,336; older people N=263). **Source of effectiveness data:** RCT at 6 months. **Source of resource use data:** RCT (N=139); data	**Outcomes: description and values** N=263 older people completed interviews at 6 months The following outcome tools were applied: • 12-item version of the General Health Questionnaire (GHQ; Goldberg 1992) to capture the psychological wellbeing of service users. • A single quality-of-life question using a seven-point scale (Bowling, 1995). • Adult Social Care Outcomes Tool (ASCOT; PSSRU) to measure social care related quality-of-life. • Questions on satisfaction. GHQ (higher scores indicate worse health): GHQ-12 mean score: IG (n=129) 14.63; p< 0.05, CG (n=107) 13.24% scoring above 4+ on GHQ-12: IG 45% (sd=58) and CG 29% (sd=31); statistically significant but p-value was not reported.	Across all groups (including older people): IB marginally less cost-effective than control; cost per incremental change in ASCOT (-£61), cost per incremental change in GHQ (-£12). No dominance of IB for ASCOT, QoL, or self-perceived health. **Uncertainty measurement:** Confidence intervals and bootstrapping.	**Applicability:** Broadly applicable with some limitations. **Quality:** Overall relatively high, with some limitations. **Summary:** This study did not confirm that IB were more cost-effective than other forms of care; the data suggested that when older people were given a choice of IB they were more likely to replace home care with personal assistants. Findings need

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
	from local authorities at baseline, self-reported data at 6 months. **Source of unit cost data:** Local authority and national unit costs.	ASCOT (higher scores indicate higher level of needs): IG 3.53 (n=126), CG 3.57 (n=97), not significant, p–value was not reported. Self-perceived health (higher scores indicate worse self-perceived health): IG 3.20 (n=141), CG 3.01 (n=120), not significant, p–value was not reported. Satisfaction All groups: 47 (49) per cent were extremely or very satisfied with the support planning process (financial arrangements and help they received). Older people were more likely than other groups to express higher satisfaction (significance not reported) but significantly less likely to report that the process had changed their view on what they could achieve in their lives. **Costs: description and values** Weekly mean cost for care management across all groups was £18 for IG and £11 in the comparison group (CG). Weekly mean *social care* cost for older people: IG (n=73) £228, CG £227 (n=66). • Home care (IG £57, CG £90). • Personal assistance (IG £66, CG £31). • Integrated community equipment (IG £29, CG £26). • Social worker/care manager (IG £16, CG £10). • Meals service (IG £2, CG £2). • Supporting people (IG £1, CG £1). Weekly mean *health care* cost for older people in IG+CG (n=139): £107 (only reported for IG and CG together); this included:		to be considered with caution.

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
		• Inpatient hospital £51. • Day hospital £14. • Nurse £36. • Therapist £2. • GP £5. Weekly mean health costs *all groups* IG £83 CG £59; p<0.05. Yearly mean IB for older people (n=81) £7,860 (n=81); SD £6,030; minimum (maximum) costs £224 (£27,410). • 53% (n=44) for mainstream services: mean £5,970, SD £5,350. • 41% (n=33) for personal assistance: mean £7,590, SD £6,680. • 15% (n=12) for leisure activities: mean £1,800, SD £2,770.		

Jones K, Netten A, Fernández JL et al. (2012) The impact of individual budgets on the targeting of support: findings from a national evaluation of pilot projects in England. Public Money & Management 32: 417-424

Country, study type and intervention details.	**Study population, design and data sources.**	**Costs: description and values.** **Outcomes: description and values.**	**Results: Costs.**	**Summary.**
Country: United Kingdom. **Study type:** Cost analysis. **Intervention:** Choice of Individual Budgets (IB). **Control:** Standard care (including direct payments).	**Population:** People eligible for adult social care; four groups of service users: people with mental health problems, with physical disability, with learning disability, older people. Mean age of older people 81 years, 66% female, 5% Black and Ethnic Minority groups. **Study design:** Multi-method, including multi-site RCT; (N=888; Older people N=139). **Source of effectiveness data:** Not applicable. **Source of resource use data:** Questionnaire applied in interviews with service users at 6 month, data from councils in particular support plan records. **Source of unit cost data:** Council provided unit cost; PSSRU compendium on unit costs for health and social care (PSSRU, 2007).	**Outcomes: description and values** Reported in Glendinning et al 2008 (see above). **Costs: description and values** Measured were: • Support packages and social care costs at baseline including recurrent annual figures and one-off payments (IG+CG). • Support plan records (IG): total cost estimated by summing the total funding of services and support as per record. • Resource use (IG+CG): service use, including NHS and use of funding streams other than social care. *Care management,* IG (n=268) £18/wk.; CG (n=250) £11/wk., p<0.001; *Cost of care/support packages* (social care) £228/wk., CG £227/wk.; included in this were *home care* IG £37/wk., CG £70/wk., p<0.001 and *personal assistants* IG £100/wk., CG £52/wk., p<0.001. It was reported that older people used significantly less services compared to other groups; this finding was consistent with annual reported personal social services (PSS) expenditure. Existence of informal carer did not have significant impact on the level of support. **INSERT- additional information from the lead author:** An additional £579 per week was estimated for the unpaid hours spent by carers supporting service users in the IB group, compared with £508 in the comparison group. The cost was estimated by multiplying the hours spent on caring by the hourly rate for ele-	Weekly costs of care management were on average £7 higher in the IG; overall costs of the support package were almost the same but costs of home care were lower and costs of personal assistants higher in the IG.	**Applicability:** Broadly applicable with some limitations. **Quality:** Overall relatively high, with some limitations. **Summary:** The data suggested that when people were given a choice of IB they were more likely to replace home care with personal assistants. Costs (including those of unpaid care were slightly higher in IG due to additional costs for care management and unpaid care). Findings need to be considered with caution.

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Costs.	Summary.
		mentary administration and service occupation (New Earnings for England 2007). **Stastical analysis:** Analysis of differences in costs between the two groups: Multivariate analysis, Independent t-test, ANOVA, GLM.		

Montgomery P, Mayo-Wilson E, Dennis JA et al. (2008) Personal assistance for older adults (65+) without dementia. Cochrane Database of Systematic Reviews: Reviews 2008; Issue 1.

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Comments.
Country: International. **Study type:** Systematic review. **Intervention:** Personal assistance defined as paid, long-term support for more than 20 hours per week. **Control:** Comparisons in the four included studies were usual care (Carlson 2007, Sherwood 1983), nursing homes (Braun 1987),'cluster care' (Feldman 1996).	**Population:** Older people (aged over 65 years) living in the community who require assistance to perform tasks of daily living (e.g., bathing and eating) and to participate in normal activities due to permanent impairments. **Study design and data sources:** One of the included studies was a large RCT (Carlson 2007; N=938) three were non-randomised. Participants from the four included studies were N=1,642.	**Outcomes: description and values** A wide range of outcomes were considered (measured with varies generic and specific tools; preference was given to validated tools): • A wide range of health and quality of life outcomes (including mortality). • User satisfaction. • Participation in activities. • Ability to perform activities of daily living. • Mental health. • Impact on family. • Hospitalisation, emergency room visits and need for institutionalisation. • Costs (see below). A wide range of values were reported; we only present findings that can inform economic analysis based on criteria for outcome measures (i.e. measured on a standardised scale, quantifiable). Areas with no significant effects (e.g. mortality) are not reported here.	None of the studies presented combined cost effectiveness values. The authors concluded that personal assistance: • may be preferred over other services; but some people preferred other models of care; probably had some benefits for some recipients and their informal caregivers; that paid assistance might substitute for informal care and cost government more than alternative arrangements; that	**Applicability:** Limited applicability. **Quality:** The systematic review was a Cochrane review that followed standardised methods for appraising the quality of single studies; they reported study designs were 'problematic' with risk of bias but that results were generally consistent (+). **Summary:** No conclusive findings whether personal assistants were more cost-effective than other forms

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Comments.
		Results 'unmet needs': • Unmet needs with any activity of daily living, IG 44% (n=467), CG 58% (n=471), p<0.01 (Carlson 2007). • Overall unmet needs, range 1 [no need] to 5 [very high need], IG 1.26, CG 2.52, p<0.01 (Sherwood 1983). Results 'physical health': Data on other health outcomes were mixed, suggesting personal assistance might have some beneficial impacts on health but usually not significant with the exception of: • Falls IG 13%, CG 20%, p= 0.01 (Carlson 2007); • Contractures developed or worsened IG 18%, CG 27%, p<.01 (Carlson 2007). • Mean duration spent in hospital or other long-term care setting, IG 34 days, CG 82 days (Sherwood 1983). Results 'mental wellbeing': • Emotional health using unvalidated measures, range 1 [very optimistic] to 5 [very pessimistic], IG mean 2.34 CG 2.76, p<.05 (Sherwood 1983). • Depression on 20 item scale, the Center for Epidemiologic Studies Depression Scale (CES-D; Sumpton 1987); though data were not included in the report, the authors indicate that cluster care did not affect depressive symptoms (Feldman 1996). Results 'impact on carers'(Carlson 2007): Results for caregivers of older adults and non-elderly participants were reported together (N=1,042); caregivers satisfaction with overall care arrangements (IG	the relative total costs to recipients and society were unknown.	of care but evidence on effectiveness generally supports that the employment of personal assistance could lead to better physical health and wellbeing outcomes for older people using it and improved outcome for their carers. Findings have to be interpreted with caution.

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Comments.
		52%, CG 32%, p<0.01), emotional strain (IG 42%, CG 49%, p=0.02), feelings that caregiving limited their privacy (IG 41%, CG 51%, p<0.01) or free time (IG 55%, CG 60%, p=0.06), financial strain (IG 30%, CG 39%, p<0.01), wanting work but not seeking employment due to caregiving (IG 34%, CG 44%, p<0.01), absenteeism (IG 54%, CG 66%, p<0.01), physical strain (IG 32%, CG 42%, p<0.01) and negative health outcomes due to caregiving (IG 31%, CG 40%, p<0.01). Results 'adverse effects' (Carlson 2007): There was small risk that caregiver could become more negligent when personal assistants were employed. **Costs: description and values** Direct and indirect costs (short and long-term) were considered and reported (no further detail available from this source). • Personal assistance saved $5.04 per participant per day compared to treatment as usual; this included the costs for placements, public sector services, community support services and informal care (Sherwood 1983). • Increased direct cost to the government (in the study this is the insurance organisation): 1st year IG $20236, CG $19407, 2nd year IG $20015 CG $17975; wider costs not considered (Carlson 2007). • Charges per day were $28 per day for personal assistance and $74 per day for nursing home participants (Braun 1987). • IG received six more hours of assistance per week than CG (Feldman 1996).		

Netten A and Forder J (2007) The costs of what? Measuring services and quality of care. Social Policy and Society 6:397-409

Country, study type and intervention details.	**Study population, design and data sources.**	**Costs: description and values.** **Outcomes: description and values.**	**Results: Cost-effectiveness.**	**Comments.**
Country: United Kingdom. **Study type:** Cost-effectiveness/utility. **Intervention:** Home care at different intensities for groups with different levels of ADL/IADL. **Control:** No control group; counterfactual was imputed based on expected level of need in the absence of the services.	**Population:** Older people (>65 years; 33% >85yrs; 73% female; 65% living alone) who used home care (N=384); overrepresentation of older people who used more intensive care packages; 40% used additional services in particular day care. **Study design:** Multi method; based on measuring social care outcomes relevant to home care and projections of costs based on value-for-money principles of Wanless (2006) review. **Data sources:** A range of existing (national) survey data. **Sources of effectiveness data:** Data from study which fed into the 'Relative Needs Formula' for allocating central government funding to n=14 local authorities; home care service user experience survey (UES) in England (2003) which provided national satisfaction data of 87,000 older people with social care provided in their home; in addition, more detailed questionnaire by 34 local authorities	**Outcomes: description and values** • 8 domains of social care (similar to ASCOT); for each domain individuals stated whether this was addressed by their care package and their estimated level of need in the absence of this help. • Mean estimated Capacity for benefit (CfB) was calculated as the difference between outcomes in the absence of social care and the best possible outcomes state. • Quality weights were applied to CfB values together with number of weeks of home care provided. Mean CfB for different intensities of home care*:* 0-2 hrs/wk. (N=50): 1.35 (SD 1.30); 2-5 hrs/wk. (N=87): 1.48 (SD 1.16); 5-10 hrs/wk. (N=103): 1.69 (SD 1.32); 11+ hrs/wk.(N=127): 2.83 (SD 1.77); all hrs/wk. (N=367): 1.99 (SD 1.58) **Costs: description and values:** • Only home care service use data were presented for N=384; 65% (n=240) received low intensity home care (<11hrs/wk.); 35% (n=127) used high intensity home care (11+ hrs/wk.); • 28% (n=108) used privately organised home care; 16% (n=24) used meals services; 24% (n=92) used day care; • 16% (n=62) used home care together with meals, 23% (n=89) used home care together with day care; • 4% (n=15) used home care together with day care and meals.	Cost (gain) of an additional hour of home care from 10th to 11th hour per week: £600 per annum (0.044 in standards units); ICER: £14,000. At a cost-effectiveness threshold of £20,000, the following intensities (costs) of home care were cost-effective: • For people with difficulties performing ADLs or IADLs home care: up to 8 hrs/wk. • For people unable to perform one ADL or IADL: up to 14 hrs/wk was cost-effective. • For people unable to perform two or more ADL or IADL home care: up to 20 hrs/wk.	**Applicability:** Limited applicability. **Quality:** We did not assess the quality in detail because the study was of limited applicability; this was a new and complex theoretically based study that aimed to develop a new approach for estimating welfare gain from government expenditure in social care; reporting quality was mixed. **Summary:** The study was of limited applicability and limited relevance of the study design for the purpose of our review question. The findings might be used to inform the guideline more generally.

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Comments.
	covering met needs, service quality and care worker attitudes. **Data on resource use and unit costs:** The study did not provide further detail on how resources were valued.			

Windle K, Wagland R, Forder J et al. (2009), National Evaluation of Partnerships for Older People Projects: Final Report, PSSRU Discussion Paper 2700, University of Kent

Country, study type and intervention details	Study population, design and data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Summary
Country: United Kingdom. **Study type:** Cost-effectiveness analysis. **Intervention:** Range of low level services including emotional and social support (e.g. memory cafes, counselling, lunch-clubs) rolled out as part of the national Partnerships for Older People Projects (POPP). Two thirds of the projects were	**Population:** N=264,000, mean age 75 (range 40 to 101yrs), female 67%, 81% living in their own homes, majority lived in deprived areas; a large proportion (34%) of those >85yrs used early intervention; mean age of older people using emotional and social support was 74yrs; 77% female; 46% living alone. **Study design:** Multi-method, case study approach. 29 local authorities participated, 146 local projects, period May 2006 to March 2009.	**Outcomes: description and values** Health related quality of life (HRQoL) measured via EQ-5D (includes five health domains: mobility, self-care, usual activities, pain/discomfort, anxiety/ depression), measured on 0 to 1, with higher scores indicating better health. Results across all projects • Actual change (act.) before counterfactual is imputed (n=1,320): A small non-significant decrease (t=0) 0.558 (t=1) 0.552 and mean change of 0.006. • After adjustment (adj.) with counterfactual (n=1,215): A small non-significant increase (t=0) 0.553 (t=1) 0.5711 and mean change of 0.01794. Results for emotional and social support/isolation: • Projects (n=16) that only provided emotional and social support to individuals (n=244) showed a negative	**Cost-effectiveness results:** At willingness-to-pay (WTP) of £30,000, practical support and exercise/physical health projects had a 99% probability of being cost effective. No cost-effectiveness results presented for emotional and social support/isolation; the findings can, however, be summarised as follows: • Projects (after initial set up) cost £4/wk. per	**Applicability:** Partially applicable. **Quality:** Some limitations. **Summary:** Findings indicated that emotional and social support probably reduced anxiety or depression. Emotional and social support was less cost-effective compared with other low level projects when a generic health measure was applied. Further

Country, study type and intervention details	Study population, design and data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Summary
'community facing' including emotional and social support, practical help, exercise, and geographical. **Control:** Counterfactual is imputed based on data from the British Household panel Survey and Health Survey England (for EQ-5D) and based on data from the Health and Social care Information Centre (for costs in form of emergency bed days).	**Source of effectiveness data:** Health-related quality of life questionnaires administered at two time points; 1st prior to the project start and 2nd 3 to 6 months after project start; N=1,529 (from 62 projects). **Source of resource use data:** • Budget and activity data from projects collected through varies data collection channels. • Client Service Receipt Inventory (CSRI), asked individuals about service use 3 months prior to project (t=0) and three to six months following their contact with the project (t=1). • Data from Health and Social Care Information Centre on emergency bed days. **Source of unit cost data:** 08/09 NHS tariffs; PSSRU Compendium for Unit costs in health and social care 2006	actual (-4%) and adjusted change (-2.6%) in HRQoL. • Anxiety and depression scores of the EQ-5D reduced with an increase in individuals not feeling anxious or depressed from 58% to 63% but this was outweighed by increased scores in the other domains. • The author concluded that the outcome tool was not suitable for this type of project. • Emotional and support projects achieved a greater increase in benefit claims than most of the other projects. Results for practical help (simple aids, grab-rail making washing easier, minor repairs, gardening); n=9 projects, n=119 individuals: • Act. (t=0) 0.549 (t=2) 0.579; mean change 0.029; 5% increase. • Adj. (t=0) 0.549 (t=2) 0.619; mean change 0.069; 12% increase. Results for exercise/physical health projects (tai chi, chiropody, exercise programmes); n=4 projects, n=53 individuals: • Act. (t=0) 0.505 (t=2) 0.531; mean change 0.025; 5% increase. • Adj. (t=0) 0.506 (t=2) 0.569; mean change 0.063, 12% increase. Community/geographical (social recreation, learning opportunities, volunteering, healthy-living); n=6 projects, n=188 individuals: • Act. (t=0) 0.717 (t=2) 0.71; mean change -0.003; 4% reduction;	person. • Some reduction in anxiety/stress. • Savings from reduction in health services of £30 over 6 months. • Small likelihood that there could be adverse effects on other health domains. **Sensitivity analysis:** At WTP of £20,000 probability that exercise/ physical health projects were cost-effective reduced to 89%.	evaluative research is needed which should also apply measures that capture psychological wellbeing (such as the GHQ).

Country, study type and intervention details	Study population, design and data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Summary
	and 2008.	• Adj. (t=0) 0.718 (t=2) 0.744; mean change 0.026; 4% increase. Further investigation showed the reason for the negative actual and only small adjusted change was due to an increase in single domain, 'pain', and a single project. **Costs: description and values** Cost of running the project from budget and activity data: • Mean cost per person of projects aimed at primary prevention £4/wk. • Mean cost per person of projects aimed at secondary prevention £7/wk. This excludes the first year in which not many projects had been set up. Including the first year of operations the mean cost per person rose to £303. Wider service use impact (measured via CSRI) over a mean administration time of 6 months • Emotional and social support/isolation: A statically significant reduction in secondary care appointments (p=0.04), leading to a decrease in cost of £52; an increase of GP visits leading to an increase of £22 so that total savings were £30 per person. • Exercise/physical health: Reduction in secondary care appointments, leading to a decrease in costs of £126. In addition, resource use in the form of changes in emergency bed days were established based on com-		

Country, study type and intervention details	Study population, design and data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Summary
		parison between emergency bed days in the localities where the projects were rolled out versus localities without projects. • Saving of primary prevention projects: £0.70 for £1 spent.		

Woolham J and Benton C (2012) The costs and benefits of personal budgets for older people: Evidence from a single local authority. British Journal of Social Work 1-20.

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
Country: United Kingdom. **Study type:** Cost-effectiveness analysis. **Intervention:** Individuals who agreed to try a personal budget.	**Population:** N=448 individuals from different care groups including n=133 older people. **Study design:** Comparative; without before/after; IG: n=179, CG: n=371.	**Outcomes: description and values** General Health Questionnaire 12 (GHQ 12), higher scores indicating worse psychological health: • Significant difference between older and younger people in IG (65yrs +: m=13.36, SD=6.29; <65yrs: m=10.12, SD =6.93, p=0.006); no significant difference between scores for older and younger groups of traditional users (65yrs +: m=14.79, SD=7.38;	Cost benefit profiles created through bootstrapping; personal budget holders had limited benefit but much greater costs compared with users of 'traditional' care.	Not sufficiently applicable to the review question mainly because the questions did not provide detail on home care and care packages and only captured costs

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
Control: 'Traditional' services.	**Source of effectiveness data:** Self-completion postal questionnaire, at 1 time point. **Source of resource use data:** Management information system; information on internal day care services from separate database. **Source of unit cost data:** No detail provided. **Statistical analysis:** Bootstrapping; paired t-test to compare differences between older and younger age groups.	<65yrs: m=13.28, SD=7.37, p=0.092). Activities of Daily Living Scale (ADL): • No significant difference between older and younger people in IG (65yrs+: m=12.66, SD=3.13; <65yrs, m=11.77, SD=3.59, p=0.12) but significant difference between older and younger people in CG (>65yrs+: m=13.06, SD 3.84; <65yrs; m=11.93, SD 3.72, p=0.011) for CG. **Costs: description and values:** *Costs were reported for different care group, here only those for older people are presented* Reported were mean care package costs per week (pw) which excluded infrastructure costs which the authors defined as the costs of care management (CG+IG) and of advocacy and support service time (IG); for IG: care package cost as per given date 1st June 2009; some additional assumptions made for previous users of direct payments for CG: weekly mean cost derived from information about home care package, direct payments, supported accommodation and equipment, day care. Older people (65yrs+): IG (n=53) £243pw; CG (n=80) £114pw. People using personal budgets received more money; costs for individuals in IG twice as large as in CG.	**Uncertainty measurement:** Standard deviation and bootstrapping.	from an adult social care perspective. Findings might be used to inform recommendations under the scope more generally.

Home Care Review question 6.1

Economic evidence table

What elements of telecare that could be used in planning and delivering home care are effective in improving outcomes for people who use services and their carers?

Beale S, Sanderson D, Kruger J (2009), Evaluation of the Telecare Development Programme, Final report, Joint Improvement Team, produced for the Scottish Government, Edinburg.

Country, study type and intervention details.	**Study population, design and data sources.**	**Costs: description and values.** **Outcomes: description and values.**	**Results: Cost-effectiveness.**	**Summary.**
Country: United Kingdom. **Study type:** Cost savings study. **Intervention:** Telecare solutions introduced as part of the National Telecare Development Programme. **Control:** None.	**Population:** Included N=7,900 people using telecare, vast majority were (85%) older people, 32 partnerships. 74% had used telecare for the first time, 24% used an enhanced form of telecare, 2% used telecare provided as part of move to sheltered housing or similar; use of telecare for more than 6 months (48%), 4-6 months (22%), 1-3 months (24%), less than 1 month (6%). **Study design:** Cross-sectional with measurement at single time point; representatives of partnerships were asked about perceived change in outcomes, possibly informed by some locally available data and guidance material. **Source of effectiveness data:** Service users and carers questionnaires sent out by partnerships; time period	**Outcomes: description and values** No standardised outcome measurement tools but questionnaire on different aspects of perceived health and wellbeing; response rate could not be determined as it was not known how many questionnaires had been sent out. Service users (N=461) • Quality of life: increased (61%), no change (35%), decreased quality of life (5%). • Health: improved (27%), no change (55%), worsened (18%). • In addition, majorities felt safer, more independent, thought their families worried less. Carers (N=301) • Stress: much reduced (25%), a bit reduced (49.3%), increased (4.3%). • Hours of unpaid care: reduced (13.5%), same (73%), increased (13.5%). **Costs: description and values** Costs derived from 2007/08 budgets, quarterly values were cumulative so that Q4 presents the estimated annual costs saving at the end of 2007/08: • Improved hospital discharge: Q1 (n=8) £434,975; Q2 (n=13): £742,328; Q3 (n=16, 17) £1,303,189; Q4 (n=20, 21) £1,731,944.	**Cost-savings results:** No data on the costs of telecare included; costs savings only refer to an estimated scope for savings based on potential service use reductions: Hospital discharge £1.7million; reduced unplanned hospital admission £3.3million; reduced care home admission £3.4; reduced night care £0.6million; reduced home check visits £1.8million; other efficiencies £0.3million; total cost savings £11.2million.	**Applicability:** Insufficiently applicable. **Quality:** Major limitations, including very low reporting quality (--). **Summary:** The study design was not appropriate and too weak to allow deriving conclusions about cost-effectiveness or cost savings.

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
	in which responses were measured not stated. **Source of resource use data:** Quarterly returns on range of activity and some financial data, including service user characteristics and reasons for using telecare, outcomes and efficiency statements; national Costs Book 2007 and 2008 for data on average length of stays to calculate bed days saved where that was not possible based on local data only; additional information through interviews with practitioners from a smaller number of case study sites (n=5).	• Reduction in unplanned hospital admissions: Q1 (n=7) £156,809; Q2 (n=9) £468,198; Q3 (n=16, 18) £2,017,933; Q4 (n=18, 22) £3,343,467. • Reduced use of care homes: Q1 (n=10, 12) £202,827; Q2 (n=14, 16) £708,281; Q3 (n=19, 22) £1,996,109; Q4 (n=23, 26) £3,421,621. • Reduced night care: Q1 (n=4) £25,450; Q2 (n=5) £143,900; Q3 (n=8, 9) £355,899, Q4 (n=10, 12) £557,119. • Reduction home check visits: Q1 (n=4) £304,810; Q2 (n=5) £937,351, Q3 (n=7) £1,359,306, Q4 (n=10) £1,796,039. • Local efficiencies: Q1 (n=1) £200, Q2 (n=0) -, Q3 (n=1) £287,560, Q4 £301,000.		

Clifford P, Padda K, Brown O et al. (2012), Investing to save: assessing cost-effectiveness of telecare, FACE Recording and Measurement Systems

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
Country: United Kingdom. **Study type:** Cost savings study.	**Population:** Sample of older people living in their own homes with completed FACE assessment from eight councils (N=50, female 72%).	**Outcomes: description and values** The study did not evaluate outcomes to individuals and carers but refers to a previously published Scottish study (Beale et al 2009) which demonstrated that service users felt safer and believed their families were less worried and that carers felt less stress and more	**Cost-savings result:** The authors applied percentages of savings to national budgets per 250,000 people to estimate weekly savings	**Applicability:** Not sufficiently applicable. **Quality:** Major limitations including low reporting quality (-).

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
Intervention: Different telecare solutions, no further detail was provided. **Control:** None.	**Study design:** Mixed method, based case descriptions: case records were scored on items that were expected to change in the presence of telecare; cost savings were then assigned. **Source of effectiveness data:** Not applicable. **Source of resource use data:** For budgets estimates, the FACE national RAS model for older people was used which was based on data of over 2000 individuals provided by 20 councils; the model used a standardised assessment of needs and average standard unit costs. In addition, national budget data were used but sources were not stated. Costs of telecare were based on data from the telecare provider (Tunstall) but no further detail was provided.	peace of mind. **Costs: description and values** It was reported that weekly budgets were calculated for each individual 'with' and 'without' telecare solution based on an allocation model, of which the author reported that it produced estimates largely reflective of actual council costs. The difference in weekly budgets were not reported but it was reported that they were based on the following data: • Unit cost: home care (day) £13.6/hr; home care (night) £13.8; residential care £421/wk.; residential care (dementia) £451/wk. • Weekly budgets: 'High need' £316; 'Moderate need' £155-£316; 'Low need' £155. Weekly costs of telecare package based on weekly budgets and the costs of telecare were calculated; for the latter calculations were not presented but it was reported that costs included monitoring and maintenance costs and that capital costs were spread over five years; the following data were reported: • Weekly cost of telecare: high needs £6.08; moderate needs £6.3. • Cost of care package without telecare: £167. Furthermore, potential cost savings were estimated to reflect potentially avoided need for other social care services and unpaid care. First, scores were assigned to individuals to assess likely impact on carers: 0 no restrictions, to 4 severe restrictions; next, assumptions on service reductions were made based on some esti-	to the social care budget per council and found that weekly savings range from £3 million (short-term) to £7.8 million (medium-term). Weekly savings per individual ranged from £29 to £39 for individuals with high needs, and from £6 to £35 for individuals with low needs, and overall from £15 to £39.	**Summary:** Findings cannot be used to inform cost effectiveness recommendations.

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		mated reduction in scoring: • 'very severe' to 'severe' was assumed to avoid residential care stay; minimum standard cost of residential care was applied; later on in the report a distinction was made between short- and medium-term scenarios, whereby the short-term scenario assumed that 50% of unpaid care would be replaced by social care package and medium-term residential care was assumed to be provided. • 'severe' to 'moderate' was assumed to lead to reduced community-based support, by 50%. • 'moderate' to 'mild was assumed to lead to 25% reduction in social care costs. The authors reported an unusually higher number of individuals for which community care cost were higher than residential and applied a cap to 5 of 6 cases (set at the cost of residential care) to adjust for it. Mean costs were presented for the situation with and without telecare: • Mean costs overall (N=50): with telecare £166/wk; without telecare (short-term scenario) £181/wk; (medium-term scenario) £205. • Mean costs high needs (n=16): with telecare £294/wk., without telecare (short-term) £323/wk.; (medium-term) £333. • Mean costs moderate needs (n=34): with telecare £109, without telecare (short-term) £115 (medium-term) £144.		

Henderson C, Knapp M, Fernández J-L et al. (2014) Cost-effectiveness of telecare for people with social care needs: the Whole Systems Demonstrator cluster randomised trial, Age and Ageing, 0:1-7.

Country, study type and intervention details.	**Study population, design and data sources.**	**Costs: description and values.** **Outcomes: description and values.**	**Results: Cost-effectiveness.**	**Summary.**
Country: United Kingdom. **Study type:** Cost-effectiveness analysis. **Intervention:** 'Second-generation' telecare package in addition to existing social and health care packages (which could include 'first generation' telecare. **Control:** Existing social and health care package (which could include 'first generation' form of telecare). *Explanation:* 'Second generation' telecare referred to different types of call centre based monitoring services responding to alarms and sensors with altogether 27	**Population:** Individuals with social care needs, and their carers, recruited from three English local authorities (=sites); mean age 73.2. **Study design:** Multi-site pragmatic cluster RCT, N=2,600, IG: 1,276, CG: 1,324. **Source of effectiveness data:** Cluster RCT at baseline (t=0) at 12 months (t=1). **Source of resource use data:** Self-reported units of service use via the Client Service Receipt Inventory (CSRI) at baseline (t=0) and 12 months (t=1). **Source of unit cost data:** National unit costs from Department of Health Reference Costs (2009-10), and PSSRU compendium for health and social care (2010).	**Outcomes: description and values** N=1,182 (t=0); N=757 (t=1); data available at both time points for n=375 (IG), n=378 (CG). Primary outcome: EQ-5D (for calculating QALYs) IG: 0.321 (SE 0.016) CG: 0.333 (SE 0.016) Small, statistically non-significant difference 0.003 (-0.0018, 0.024), standard difference (%): 3.7. Secondary outcomes: Perceived physical and mental health status, psychological wellbeing, state-trait anxiety; outcomes reported in a different study (Hirani et al 2012). **Costs: description and values** N=1,182 (t=0); N=757 (t=1); data available at both time points for n=375 (IG), n=378 (CG). Cost of intervention: £791 (£710 for support and £81 for equipment). Costs for service use (total excluding telecare) IG: £8,117, SE £558.5 CG: £7,290, SE £531.6 Difference is mainly due to greater use of home care (IG: £42 SE £4.3, CG: £33 SE £3.7), social work and community nursing (difference of 1.6 visits).	**Cost-effectiveness result:** Cost per additional QALY was £279,000; the probability that telecare was cost-effective was under 16% at a willingness-to-pay threshold of £30,000. **Sensitivity analysis:** Different cost and threshold scenarios tested including thresholds up to £90,000; intervention unlikely to be cost-effective; e.g. when cost/price for support package was reduced to £5 per week and equipment costs by 50%, the probability of cost-effectiveness still only increased to 31%.	**Applicability:** Partially applicable. **Quality:** Some limitations (+); mainly due to lack of sub group analysis. **Summary:** Second-generation telecare was not cost-effective; the study did not explore whether for certain sub groups the intervention was cost-effective; also the inclusion of unpaid care costs might change the findings.

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types of devices (mean use: 4.7); 'first generation' telecare referred to community alarms or pull-cords.		Costs for service use (total including telecare) IG: £8,909, SE £559.9 CG: £7,329, SE £532.2 Incremental costs: £1,014 (95% CI £-525, £2,553). It is reported that participants in CG had greater use of 'first generation' telecare at follow-up than at baseline (difference of 13%, $p<0.05$).		

Home care review questions 7.1, 7.2

Economic evidence table

What information and support is helpful to people seeking access to home care services?

What information and support should be provided to people who use home care services to enable them to be aware of their options, and play a full role in reviewing their care and making decisions?

Windle K, Wagland R, Forder J et al. (2009), National Evaluation of Partnerships for Older People Projects: Final Report, PSSRU Discussion Paper 2700, University of Kent.

Country, study type and intervention details.	**Study population, design and data sources.**	**Costs: description and values.** **Outcomes: description and values.**	**Results: Cost-effectiveness.**	**Summary.**
Country: United Kingdom. **Study type:** Cost-effectiveness analysis. **Intervention:** Range of low level services including 'information, signposting and access' (ISA) rolled out as part of the national Partnerships for Older People Projects (POPP). Interventions included: a single point of information on social care and health; peripatetic information by home care workers, exploring needs and building them into action plans. **Control:** Counterfactual is imputed based on data from the British	**Population:** Across projects: N=264,000, mean age 75yrs; female 67%, 81% living in their own homes. ISA projects: 5 projects; N=91; mean age 74yrs; female 78%. **Study design:** Multi-method, case study approach; 29 local authorities participated, 146 local projects, period May 2006 to March 2009. **Source of effectiveness data:** Health-related quality of life questionnaires administered at two time points; 1st prior to the project start and 2nd 3 to 6 months after project start. **Source of resource use data:** • Budget and activity data from projects collected through varies data collection channels.	**Outcomes: description and values** Health-related quality of life (HRQoL) measured via EQ-5D (includes five health domains: mobility, self-care, usual activities, pain/discomfort, anxiety/ depression), measured from 0 to 1; higher scores indicating better health. Results across all projects • Non-significant change (p=0.7). • Actual change (act.) before counterfactual is imputed (n=1,320): A small non-significant decrease (t=0) 0.558 (t=1) 0.552; mean change of 0.006. • After adjustment (adj.) with counterfactual (n=1,215): A small non-significant increase (t=0) 0.553 (t=1) 0.5711 and mean change of 0.01794. Results for ISA (N=91) • Non-significant change (p=0.11). • Act. (t=0) 0.583 (t=2) 0.604; mean change 0.02; 3.4% increase. • Adj. (t=0) 0.583 (t=2) 0.584; mean change 0.001; 0.2% increase. • When effects were standardised to a year, a reduced effect was seen. The authors report that more individuals reported deterioration than those who reported improvement. **Costs: description and values** Cost of running the project from budget and activity	**Cost-effectiveness results:** At WTP of £30,000, ISA had 83% probability of being cost effective. **Sensitivity analysis:** At WTP of £20,000 probability that ISA was cost-effective reduced to 75%.	**Applicability:** Broadly applicable. **Quality:** Some limitations (+). **Summary:** With caution findings can be used to inform recommendation; with consideration that costs savings were likely to be lower than the ones stated.

Country, study type and intervention details.	Study population, design and data sources.	Costs: description and values. Outcomes: description and values.	Results: Cost-effectiveness.	Summary.
Household panel Survey and Health Survey England (for EQ-5D) and based on data from the Health and Social care Information Centre (for costs in form of emergency bed days).	• Client Service Receipt Inventory (CSRI), asked individuals about service use 3 months prior to project (t=0) and three to six months following their contact with the project (t=1). • Data from Health and Social Care Information on emergency bed days. **Source of unit cost data:** 08/09 NHS tariffs; PSSRU Compendium for Unit costs in health and social care 2006 and 2008.	data: • Mean cost per person of projects aimed at primary prevention £4/wk. • Mean cost per person of projects aimed at secondary prevention £7/wk. This excluded the first year in which not many projects had been set up. Including the first year of operations the mean costs per person were £303. Wider service use impact (measured via CSRI): • Not presented for ISA (projects were subsumed under categories of secondary prevention). In addition, resource use in the form of changes in emergency bed days were established based on comparison between emergency bed days in the localities where the projects were rolled out versus comparison localities: • Saving across primary and secondary prevention: at least £1 for £1 spent. *Additional research on some of the projects that applied a different method of imputing the counterfactual found that savings had been overestimated (Steventon et al 2011)*		