

## **Evidence review protocol**

### **1. Review question(s)**

There are three overarching questions covered by this review:

1. What are the most effective ways to improve or protect the mental wellbeing and/or independence of older people?
2. What are the barriers and facilitators to assessing suitability for, uptake of, and continuance with interventions or services designed to improve or protect the mental wellbeing and/or independence of older people?
3. What services and activities are currently in use in UK practice to improve or protect the mental wellbeing or independence of older people?

### **2. Context and objectives**

This review consists of three linked overarching questions on the effectiveness of interventions to improve or protect the mental wellbeing or independence of older people; the barriers and facilitators to assessing suitability for, uptake of, and continuance with interventions or services to improve or protect the mental wellbeing and/or independence of older people; and identifying services or activities that are use in UK practice to improve or protect the mental wellbeing or independence of older people.

Our focus in the review is on older people aged 65 or over, as well as those who are ‘prematurely ageing’, which here is defined as also including younger people over the age of 55 who are retired. However, all older people who had already been diagnosed with any form of pre-existing diagnosed mental health disorder, dementia or intellectual disability as covered by the ICD-10 (International Statistical Classification of Diseases and Related Health Problems 10th Revision 2010) group F00 to F99 and diseases of the nervous system G00 to G99 are excluded. In line with previous NICE public health guidance (PH 16) we will also exclude older people receiving palliative care. Older people who have substantial health and social care needs are also excluded (Box 1).

**Box 1: Substantial care needs**

There is, or will be, only partial choice and control over the immediate environment; and/or •  
abuse or neglect has occurred or will occur; and/or

There is, or will be, an inability to carry out the majority of personal care or domestic  
routines; and/or

Involvement in many aspects of work, education or learning cannot or will not be sustained;  
and/or

The majority of social support systems and relationships cannot or will not be sustained;  
and/or

The majority of family and other social roles and responsibilities cannot or will not be  
undertaken

Source: 'Prioritising need in the context of "Putting people first": a whole system approach to  
eligibility for social care' (Department of Health, 2010).

In practice when reviewing international studies this will mean excluding older people who are receiving routine help with the basic activities of daily living such as eating, washing and dressing. It will exclude all those in institutional care. Many of the actions and interventions that will be identified will cover a wider age range than that defined in scope. Alternatively where there is no breakdown by age group we will adopt an approach that we previously used to review psychosocial interventions for mental wellbeing in older people. In this review studies could also be included if some of the participants were younger than 55, as long as the mean age was at least 70 in these cases. Activities that fall within or without the scope of the review are listed in section 6.

Issues to be considered within the context of question 1 might include the differential effectiveness of interventions by delivery mechanism, the role of technology in supporting mental wellbeing and independence, and the impact of volunteering or participation in educational activities.

In looking at question 2 on barriers and facilitators, issues to be considered can include mechanisms for raising awareness through to factors around referral, uptake, delivery and

follow-up. For instance awareness may be related to the availability of information, access, and use of awareness raising strategies while uptake/referral may, for example, in part depend on service users' motivations. Sustainability may be dependent on human and financial resources, integration of care services, and/or the involvement of users in design and implementation of interventions. Individual motivation may be another key factor to participation in mental wellbeing and/or independence promoting activities. Motivation to engage with activities might, for instance, be improved by putting in place appropriate incentives (financial or/and non-financial). Individuals may also be influenced by the source of information (messenger) e.g. a volunteer or peer and it could be that sometimes the credibility/ trustworthiness of the person communicating information about services and support may be a barrier or facilitator to the uptake of any activity.

### **3. Searches**

*Sources to be searched:*

Databases: For review questions 1 and 2 all of NICE's defined core databases with the exceptions of CINAHL and Sociological Abstracts. Additional databases searched: Social Care Online database (as an agreed substitute for sociological abstracts), ERIC (Education Resources Information Centre) to identify studies on participation in education as a way of maintaining wellbeing and independence and Ageline which covers research related to older people.

In addition the following websites are examined

Age Cymru <http://www.ageuk.org.uk/cymru/>

Age NI <http://www.ageuk.org.uk/northern-ireland/>

Age Scotland <http://www.ageuk.org.uk/scotland/>

Age UK <http://www.ageuk.org.uk/>

Audit Commission <http://www.audit-commission.gov.uk/>

Campaign to End Loneliness <http://www.campaigntoendloneliness.org/>

Centre for Ageing Research and Development in Ireland <http://www.cardi.ie/>

Health Evidence <http://www.healthevidence.org/>

International Longevity Centre <http://www.ilcuk.org.uk/>

Joseph Rowntree Foundation <http://www.jrf.org.uk/>

The Kings Fund <http://www.kingsfund.org.uk/>

Local Government Association <http://www.local.gov.uk/>

Mind <http://www.mind.org.uk/>

NIACE National Voice for Lifelong Learning <http://www.niace.org.uk/>

NIHR School for Social Care Research <http://www.sscr.nihr.ac.uk/>

NIHR School for Public Health Research <http://sphr.nihr.ac.uk/>

Personal Social Services Research Unit (Publications) <http://www.pssru.ac.uk/publications-search.php>

ProMenPol (Mental Health Promotion Database)

<http://www.mentalhealthpromotion.net/?i=promenpol.en.about>

Social Care Institute For Excellence <http://www.scie.org.uk/>

Well Scotland <http://www.wellscotland.info/>

In addition a limited search using Google Scholar and Google, as well as supplemental evidence from stakeholders identified as part of a Call for Evidence, are used to inform the review. Citations of relevant studies are also identified.

#### *Additional sources searched*

To answer the third service mapping question seven local authority areas in England were chosen with a view to obtaining sufficient information on at least four local areas (Box 2). These areas were selected to ensure that we had a mix of areas that had high and low levels of deprivation, low and high numbers of older people as a proportion of the total population, geographical spread and some areas that had a significant numbers of black and minority ethnicity (BME) populations.

## **Box 2. Selected Case Study Areas**

Blackpool Unitary Council

Cotswold District Council

East Dorset District Council & neighbouring Bournemouth Borough Council

Sandwell Metropolitan Borough Council

Tower Hamlets (London) Council

Wigan Metropolitan Borough

Local council websites will be searched and a structured Google search was also conducted to identify services in local areas. In addition a bespoke questionnaire will be circulated by e-mail to directors of public health and local branches of Age UK in selected case study areas. We also used information identified from reviews to answer questions 1 and 2 in order to identify examples of services operating at a national or regional level. The websites of some of these services will also be examined. Google Scholar is searched for any evaluations of substantive programmes identified.

### *Limitations*

Only references that have an English language abstract or summary are screened and only full texts of English language documents retrieved for further analysis. There are no country restrictions in search strategy but only studies relevant to a UK context are included, which in practice will exclude many studies in low and middle income countries. The search is limited to period 1 January 2003 to July 2014 (for review question 1 and August 2014 for review question 2). This is a pragmatic time period reflecting the large volume of search results to be assessed given the breadth of this review; in the case of technology driven interventions a shorter time frame is also justified given their rapid and continued evolution. To answer question 3 on service mapping only services in operation in 2014 will be included. For question 3 only documented services and activities that meet the scope and inclusion criteria are included so interventions targeted at the general population, including older people are excluded.

## **4. Types of study to be included**

In answering question 1 only primary level studies, both controlled and uncontrolled intervention studies, evaluating the effectiveness of interventions within scope to promote mental wellbeing and independence of older people. Comparator interventions can include different ways of delivering the same intervention, as well as alternative interventions to promote mental wellbeing and independence. We will also include studies where the comparator group is no action, as well as ‘before-after’ studies without control groups. In answering question 2, both quantitative and qualitative literature focused on barriers and facilitators to the use of interventions to promote mental wellbeing and independence are included. Most of the information to answer question 3 will come from descriptions of services provided by service providers and commissioners; in addition any evaluations on the effectiveness and impact of these services can also be included in the review.

Table 1 uses the PICO (Population, Intervention, Comparator, Outcomes) framework to indicate the scope of the review. It gives examples of broad types of interventions and activities, but it is not an exhaustive list, as the actual activities, mechanisms and interventions can be very diverse.

As Table 1 indicates the effectiveness of interventions can be assessed for the older person population as a whole or for specific population sub-groups. There are many potential population sub-groups that might feature in the evidence. There may be a breakdown of effectiveness by age group, particularly comparing the oldest old (those aged over 80) with younger groups of older people, given the reported higher risks to mental wellbeing of the former group. Some other potentially important population sub-groups might include differences by age, gender, ethnicity, socio-economic and educational status, as well as whether they live alone or co-habit, have access to an informal family network or are recently bereaved. Discussion of some of the differences in outcomes for different population sub-groups which may be amenable to change, e.g. on how to best to deliver actions to ethnic minority populations, may also be covered as part of the response to the second question on barriers and facilitators.

Table 1 also shows a diverse set of potential outcomes that may be reported. Because of the contested nature of terminology for the mental wellbeing and independence concepts, the lack of an in-depth discussion on its implications for older people, and the diverse measurements used to assess it, this review will need to adopt a pragmatic approach by

including a large variety of initiatives or interventions that targets and aims to measure the positive end of the mental health spectrum, including life satisfaction, aspects of quality of life associated with positive mental wellbeing (e.g. some components of the SF-36 and other quality of life tools ), happiness, mastery, empowerment, capability and positive functioning, as well as social resources, social inclusion and civic participation. There are some emerging measures of mental wellbeing such as WEMWEBS – the Warwick Edinburgh Mental Wellbeing Scale. There has also been development of ICECAP at the University of Birmingham – which includes measures of wellbeing and capability for older people and their carers, and it is now beginning to be used in UK and international research. Independence could also be measured in terms of delay in time to the need for care and support.

In addition to many different ways in which final outcomes impact on the mental wellbeing and independence of older people, there may also be intermediate outcomes such as measures of improved awareness and information use within the health and social care professions (leading to greater rates of referral to services) and changes in behaviour e.g. in the use of interventions intended to promote mental wellbeing and independence by older people and their families. Other outcomes might include changes in the size of social networks and other measures of social inclusion and participation that could be linked to both mental wellbeing and independence. Another possible measure might be changes in rates of admission to institutional care over time.

Interventions intended to improve the identification of risks to wellbeing or independence of older people during encounters with health, social care and other professionals in their own homes may also be identified but are not a prioritised area due to the focus of our search strategy criteria on the target study population rather than on risk assessment.

**Table 1: PICO Table on the effectiveness of interventions to improve or protect the mental wellbeing or independence of older people.**

<b>Intervention Target Group</b>	<b>Intervention</b>	<b>Comparison</b>	<b>Outcome</b>
<p>Health, Social Care and other Professionals (e.g. housing association workers), as well as community volunteers, coming into contact with older people, as well as the wider local community.</p>	<p>Various training, awareness raising interventions, including improved knowledge of services and supports. Another example would be actions to change attitudes positively towards older people, and help empower professionals and other workers (including volunteers) to take more actions to improve mental wellbeing and independence of older people. Another group of interventions covers activities intended to address loneliness and isolation, for example through befriending and other visiting services provided by both professionals and volunteers.</p>	<p>Comparisons between different modes of delivering training and awareness as well as with no action.</p>	<p>Retest-recall measures; Impact on referral and service uptake by older people. Measures of staff behaviour /attitude change if documented. Impacts on health, social care and other resource use / cost implications Impacts on mental wellbeing for older people (see next row for fuller set of outcomes) might also be linked to changes in the actions of professionals and volunteers. Impacts on the independence of older people might also be linked to changes in the actions of professionals and volunteers. (see next row for fuller set of</p>



			<p>outcomes)</p> <p>Impacts on social capital (see next row for fuller set of outcomes)</p> <p>Levels of isolation and loneliness</p>
<p>Older people (and those retired over age of 55), their families and unpaid carers.</p>	<p>Various awareness raising interventions including improved knowledge on services and supports.</p>	<p>Comparisons between different modes of delivering training and awareness as well as with no action.</p>	<p>Impact on behaviours including service uptake by older people and families</p> <p>Impacts on health, social care and other resource use / cost implications</p> <p>Mental wellbeing (can be operationalised in many ways including measures of self-esteem, self-efficacy, quality of life, life satisfaction, resilience, happiness and use of specific instruments such as Warwick</p>
<p><b>Sub- groups of population Findings will be reported for population sub-groups as the evidence base allows. Many possible sub-groupings. One of the most important will be age e.g. oldest old (80+) versus younger groups given greater risks of reduced independence compared to younger old groups., Other examples are likely to</b></p>			

<p>include differences by gender, ethnicity, culture and socio-economic status.</p>			<p>Edinburgh Mental Wellbeing Scale)</p> <p>Measures of independence: including measures of ability to make choices and exercise control over daily life. It can also cover measures of the ability to live independently e.g. measures on need for help with the daily activities of living</p> <p>Social capital (i.e. social inclusion, social participation, social networks, as well as social cohesion, sense of belonging, social support, increased levels of civic engagement)</p> <p>Levels of isolation and loneliness</p>
---	--	--	---

			Awareness of how to contact/access available support services
Primary Care Health Professionals, Social Care Professionals and Related Professional groups	Training in and use of mechanisms and guidance to identify risks to continued mental wellbeing and independence during contacts with older people in their own homes.	Comparisons between different approaches to training and use of mechanisms to identify risks to continued mental wellbeing and independence as well as with no action.	<p>Referrals and signposting to services to support mental wellbeing and independence.</p> <p>Improved awareness in professionals, older people and their families, and unpaid carers of risks and/or how to better protect mental wellbeing and independence. Subsequent use of services to promote / protect mental wellbeing and independence</p> <p>Impacts on health, social care and other resource use / cost implications</p>
Older people (and those retired)	Actions to increase access to / use	Comparisons between different	Impact on behaviour including

<p>over age of 55) and unpaid carers as a whole, <b>plus some of the older people population sub-groups.</b></p>	<p>of both general public transport and dedicated transportation services as well as access to /use of mobility devices.</p>	<p>actions to encourage use of transportation services. This could for instance include comparisons of different transport options specifically targeted at older people such as dial-a-bus services, and entitlement of all older people to free or nearly free public transport (e.g. bus and train passes specifically for older people). It could also include access to services such as dial –a-bus services) specific collection and delivery services for older people.</p>	<p>service uptake by older people Impacts on mental wellbeing, social capital and independence as above. Impacts on health, social care and other resource use / cost implications Levels of isolation and loneliness</p>
<p>Older people (and those retired over age of 55) and unpaid carers as a whole, <b>plus some of the older people population sub-groups.</b></p>	<p>Actions to increase access to / use of home-based technologies / remote monitoring, information communication systems.</p>	<p>Evaluations of new information communication technologies introduced since the beginning of 2000 Comparisons between different types of these electronic/communication and with no action/intervention.</p>	<p>Impact on behaviour including service uptake and continued use by older people, families and unpaid carers. Impacts on identification of at risk individuals Impacts on mental wellbeing,</p>

			<p>social capital and independence as above.</p> <p>Impacts on health, social care and other resource use / cost implications</p> <p>Levels of isolation and loneliness</p>
<p>Older people (and those retired over age of 55) and unpaid carers as a whole, plus some of the older people population sub-groups.</p>	<p>Other actions and interventions (within scope) to promote mental wellbeing and independence. These include improved access to leisure, education and community activities.</p>	<p>Comparisons between different actions to encourage use of these services/ activity. Comparisons between different types of services/activity and with no action/intervention.</p>	<p>Impact on behaviour including service uptake by older people</p> <p>Impacts on mental wellbeing, social capital and independence as above.</p> <p>Impacts on health, social care and other resource use / cost implications</p> <p>Levels of isolation and loneliness</p>

## **5. Data extraction and quality assessment**

Results will be stored in an Endnote bibliographic referencing database. Titles and abstracts of at least 10% of all records identified in our searches will be independently assessed by pairs of reviewers. In the case of disagreements, discussion will be held among the team to come to a decision on inclusion or exclusion. Once titles and abstracts have been screened the same process will again be followed with pairs of reviewers independently looking at the full texts of papers that are retrieved; reasons for exclusion of full texts will be documented.

The results of the searching process will be documented in line with PRISMA (Preferred Statement for Reporting Systematic Reviews and Meta Analyses) guidelines. This will include a flow chart. NICE's recommended checklists for quality appraisal of studies will be used. Detailed scores of each study graded are recorded.

## **6. Strategy for data synthesis**

In answering question 1 where data permit meta-analysis will be undertaken, otherwise a narrative synthesis of the evidence will be presented. Given the likely diversity in interventions identified, evidence will be collated around specific themes which may be linked to the type of intervention or the target population group covered.

A narrative synthesis will be used for Review 2 identifying a set of key themes around barriers and facilitators. In answering question 3, information on the characteristics of different services mapped in the different case study areas will be documented in an excel spreadsheet. A narrative commentary will then be drafted on case study areas.

### **Activities or interventions that will be covered**

Interventions to raise awareness of the importance of older peoples' mental wellbeing and independence, as well as to improve knowledge of information and support on access to services to support mental wellbeing and independence among professionals, older people, their carers, families and the wider community.

Activities to promote or maintain the mental wellbeing and/or independence of older people are also covered. These can include activities to tackle ageism and encourage cross-generational respect and social inclusion. It could also include psychological interventions

delivered to promote mental wellbeing by, for example, supporting motivational or goal-attainment aspects. Similarly e-health or m-health interventions that are designed to promote mental wellbeing or independence will be included, but not the use of these interventions for the treatment of mental disorders

Actions to promote and maintain the social networks of older people, with some emphasis on the use of new communication technologies as important tools for health promoting initiatives (e.g. social media use or personal home based alarm systems use by older people on their mental wellbeing and independence, as well as looking at well established technologies such as the telephone.

The work of community-based volunteers, including older people, as well as community workers and service providers to promote, support and protect older people's mental wellbeing or independence.

Other actions include measures to specifically facilitate access to education, leisure, community activities and transportation services/mobility support for older people.

The commissioning of services by local government and other local providers, including (charities and faith groups) to promote, support and protect older people's mental wellbeing or independence.

Measures to identify and assess older people within a local community who have poor mental wellbeing or are at high risk of mental wellbeing decline, as well as assess and identify older people who lack choice and control over the services they use or who are at high risk of losing their independence.

### **Excluded interventions**

Only activities in line with the scope are included. This means that most one-to-one interactions between older people and health/social care professionals. This includes

a) Management of a chronic medical condition or disability, including dementia or another mental health disorder.

b) Procedures for, and eligibility criteria used in, assessments for social care support and other welfare benefits.

- c) Using psychological interventions such as cognitive behavioural therapy where used to treat diagnosed mental disorders.
- d) Planning for the built environment to meet older people's needs including 'age-friendly city' initiatives.
- e) Prevention of mental and physical health conditions (such as cognitive decline, obesity, diabetes, cardiovascular disease or falls), unless specific components of the intervention support or improve mental wellbeing or independence.
- f) Occupational therapy and physical activity interventions recommended in PH 16 guidance on occupational therapy and physical activity interventions to promote the mental wellbeing of older people in primary care and residential care.
- g) Interventions targeted at older people in the workplace

## **8. Search strategy for Question 1**

**Searches were run in March 2014 with the exception of DARE databases which were searched in July 2014.**

### **Review 1 Syntax search strategy Medline**

1. Aged/
2. Retirement/
3. Elder\*.ti,ab
4. Frail\*.ti,ab
5. Geriatric\*.ti,ab
6. Gerontology.ti,ab
7. Seniors.ti,ab
8. Retire\*.ti,ab
9. Pensioner\$.ti,ab
10. (Later-life or later life) .ti,ab
11. (Late-life or late life) .ti,ab
12. Old age.ti,ab
13. "Old people" .ti,ab
14. "Older people".ti, ab
15. Old person.ti,ab
16. Older person.ti,ab



17. (Older man) .ti,ab
18. (Older men).ti,ab
19. (Older woman or Older women) .ti,ab
20. Older male\$.ti,ab
21. Older female\$.ti,ab
22. (Old old or old-old) OR (Oldest old or Oldest-old).ti,ab
23. Very old.ti
24. (Senior Citizen OR Senior Citizens).ti,ab
25. Older adult\*.ti,ab
26. 1 OR 2
27. 3-25/OR
28. 26 OR 27
29. Psychological Resilience/
30. Psychological Adaptation/
31. Social Support/
32. Community Networks/
33. Independent Living/
34. Quality of Life/
35. Social Identification/
36. Happiness/
37. Mental Health/
38. Personal Satisfaction/
39. Social Distance/
40. 29-39/OR
41. Mental health.ti
42. Quality of life.ti
43. Emotional health.ti
44. Emotional capital.ti
45. Mental capital.ti
46. Wellness.ti
47. Wellbeing or Well-being or Well being.ti
48. Sense of coherence.ti
49. (Activities of daily living or ADL\$) .ti
50. Independent living.ti
51. (healthy ageing or healthy aging) .ti
52. (active aging or active ageing) .ti
53. happiness .ti,
54. meaningfulness.ti
55. resilien\*.ti
56. loneliness.ti
57. mastery.ti

58. locus of control.ti
59. capabilit\*.ti
60. empower\* .ti
61. social capital.ti
62. participation.ti
63. social support.ti
64. social contact.ti
65. civic engagement.ti
66. civic involvement.ti
67. community engagement.ti
68. sense of belonging.ti
69. psychosocial.ti
70. social inclusion.ti
71. social exclusion.ti
72. independence.ti
73. dignity.ti
74. choice.ti
75. isolation.ti
76. adl\$.ti
77. social n1 relation\*.ti
78. family n1 relation\* .ti
79. social n1 activit\*.ti
80. civic n1 activit\* .ti
81. 41-80/OR
82. 40 OR 81
83. 27 AND 82
84. Elder\*.ti
85. Frail\*.ti
86. Geriatric\*.ti
87. Gerontology.ti
88. Seniors.ti
89. Retire\*.ti
90. Pensioner\$.ti
91. (Later-life or later life) .ti
92. (Late-life or late life) .ti
93. Old age.ti
94. Old people.ti
95. Older people.ti
96. Old person.ti
97. Older person.ti
98. Older man.ti

99. Older men.ti
100. (Older woman or Older women) .ti
101. Older male.ti
102. Older female.ti
103. (Old old OR Oldest old).ti
104. Very old.ti
105. (Senior Citizen OR senior citizens).ti
106. (Older adult OR Older adults).ti
107. 84-106/OR
108. Mental health.ti,ab
109. Quality of life.ti,ab
110. Emotional health.ti,ab
111. Emotional capital.ti,ab
112. Mental capital.ti,ab
113. Wellness.ti,ab
114. Wellbeing or Well-being or Well being.ti,ab
115. Sense of coherence.ti,ab
116. (Activities of daily living or ADL\$) .ti,ab
117. Independent living.ti,ab
118. (healthy ageing or healthy aging) .ti,ab
119. (active aging or active ageing) .ti,ab
120. happiness .ti,ab
121. meaningfulness.ti,ab
122. resilien\*.ti,ab
123. loneliness.ti,ab
124. mastery.ti,ab
125. locus of control.ti,ab
126. capabilit\*.ti,ab
127. empower\* .ti,ab
128. social capital.ti,ab
129. social relation\*.ti,ab
130. family relation\* .ti,ab
131. participation.ti
132. social support.ti,ab
133. social contact.ti,ab
134. social activit\*.ti,ab
135. civic activit\* .ti,ab
136. civic engagement.ti,ab
137. civic involvement.ti,ab
138. community engagement.ti,ab
139. sense of belonging .ti,ab

140. psychosocial.ti,ab
141. social inclusion.ti,ab
142. social exclusion.ti,ab
143. independence.ti,ab
144. dignity. ti,ab
145. choice.ti
146. isolation.ti
147. 105-143/OR
148. 104 AND (144 OR 78)
149. intervention\*.ti,ab
150. initiative\*.ti,ab
151. program\$.ti,ab OR programme\$.ti,ab
152. (Promote\$ OR Promoting OR Promotion).ti,ab
153. access\* .ti
154. Social Media/
155. Communication/
156. Health Promotion/
157. Family/
158. Friends/
159. 146-155/OR
160. (145 AND 156) OR (81 AND 156)
161. Residential Facilities/
162. Nursing Homes. Txt
163. Residential care.txt
164. Long Term Care/
165. Palliative Care/
166. 158-162/OR
167. 157 NOT 163
168. editorials, comments, case reports, letters
169. 164 NOT 165
170. Limit 166 (English language, abstract, year = "2003-2014")

### **Review 1 Syntax search strategy Psychinfo**

1. (ZG "aged (65 yrs & older)") ((Index) term
2. DE Retirement (Major Concept)
3. Elder\*.ti,ab
4. Frail\*.ti,ab
5. Geriatric\*.ti,ab
6. Gerontology.ti,ab
7. Seniors.ti,ab
8. Retire\*.ti,ab

9. Pensioner\$.ti,ab
10. (Later-life or later life) .ti,ab
11. (Late-life or late life) .ti,ab
12. Old age.ti,ab
13. "Old people" .ti,ab
14. "Older people" .ti, ab
15. Old person.ti,ab
16. Older person.ti,ab
17. (Older man) .ti,ab
18. (Older men).ti,ab
19. (Older woman or Older women) .ti,ab
20. Older male\$.ti,ab
21. Older female\$.ti,ab
22. (Old old or old-old) OR (Oldest old or Oldest-old).ti,ab
23. Very old.ti
24. (Senior Citizen OR Senior Citizens).ti,ab
25. Older adult\*.ti,ab
26. 1 OR 2
27. 3-25/OR
28. 26 OR 27
29. DE "Resilience (Psychological)" (Major Concept)
30. DE "Emotional Adjustment" OR DE "Emotional Control" OR DE "Identity Crisis"  
(Emotional Adjustment Major Concept Exploded)
31. Social Support (Major Concept)
32. DE "Social Networks" OR DE "Online Social Networks"
33. DE "Self Care Skills"
34. DE "Quality of Life"
35. DE "Social Identity"
36. DE Happiness
37. DE "Mental Health" OR "Community Mental Health"
38. DE "Satisfaction" (Not exploded)
39. DE "Social Isolation"
40. 29-39/OR
41. Mental health.ti
42. Quality of life.ti
43. Emotional health.ti
44. Emotional capital.ti
45. Mental capital.ti
46. Wellness.ti
47. Wellbeing or Well-being or Well being.ti
48. Sense of coherence.ti

49. (Activities of daily living or ADL\$) .ti
50. Independent living.ti
51. (healthy ageing or healthy aging) .ti
52. (active aging or active ageing) .ti
53. happiness .ti,
54. meaningfulness.ti
55. resilien\*.ti
56. loneliness.ti
57. mastery.ti
58. locus of control.ti
59. capabilit\*.ti
60. empower\* .ti
61. social capital.ti
62. participation.ti
63. social support.ti
64. social contact.ti
65. civic engagement.ti
66. civic involvement.ti
67. community engagement.ti
68. sense of belonging.ti
69. psychosocial.ti
70. social inclusion.ti
71. social exclusion.ti
72. independence.ti
73. dignity.ti
74. choice.ti
75. isolation.ti
76. adl\$.ti
77. social n1 relation\*.ti
78. family n1 relation\* .ti
79. social n1 activit\*.ti
80. civic n1 activit\* .ti
81. 41-80/OR
82. 40 OR 81
83. 27 AND 82
84. Elder\*.ti
85. Frail\*.ti
86. Geriatric\*.ti
87. Gerontology.ti
88. Seniors.ti
89. Retire\*.ti

90. Pensioner\$.ti
91. (Later-life or later life) .ti
92. (Late-life or late life) .ti
93. Old age.ti
94. Old people.ti
95. Older people.ti
96. Old person.ti
97. Older person.ti
98. Older man.ti
99. Older men.ti
100. (Older woman or Older women) .ti
101. Older male.ti
102. Older female.ti
103. (Old old OR Oldest old).ti
104. Very old.ti
105. (Senior Citizen OR senior citizens).ti
106. (Older adult OR Older adults).ti
107. 84-106/OR
108. Mental health.ti,ab
109. Quality of life.ti,ab
110. Emotional health.ti,ab
111. Emotional capital.ti,ab
112. Mental capital.ti,ab
113. Wellness.ti,ab
114. Wellbeing or Well-being or Well being.ti,ab
115. Sense of coherence.ti,ab
116. (Activities of daily living or ADL\$) .ti,ab
117. Independent living.ti,ab
118. (healthy ageing or healthy aging) .ti,ab
119. (active aging or active ageing) .ti,ab
120. happiness .ti,ab
121. meaningfulness.ti,ab
122. resilien\*.ti,ab
123. loneliness.ti,ab
124. mastery.ti,ab
125. locus of control.ti,ab
126. capabilit\*.ti,ab
127. empower\* .ti,ab
128. social capital.ti,ab
129. social relation\*.ti,ab
130. family relation\* .ti,ab

131. participation.ti
132. social support.ti,ab
133. social contact.ti,ab
134. social activit\*.ti,ab
135. civic activit\* .ti,ab
136. civic engagement.ti,ab
137. civic involvement.ti,ab
138. community engagement.ti,ab
139. sense of belonging .ti,ab
140. psychosocial.ti,ab
141. social inclusion.ti,ab
142. social exclusion.ti,ab
143. independence.ti,ab
144. dignity. ti,ab
145. choice.ti
146. isolation.ti
147. 105-143/OR
148. 104 AND (144 OR 78)
149.       intervention\*.ti,ab
150.       initiative\*.ti,ab
151.       program\$.ti,ab OR programme\$.ti,ab
152.       (Promote\$ OR Promoting OR Promotion).ti,ab
153.       access\* .ti
154.       Social Media/
155.       Communication/
156.       Health Promotion/
157.       Family/
158.       Friends/
159.       146-155/OR
160.       (145 AND 156) OR (81 AND 156)
161.       Residential Facilities/
162.       Nursing Homes. Txt
163.       Residential care.txt
164.       Long Term Care/
165.       Palliative Care/
166.       158-162/OR
167.       157 NOT 163
168.       editorials, comments, case reports, letters
169.       164 NOT 165
170.       Limit 166 (English language, year = "2003-2014")



Similar strategies were run for Ageline, ASSIA and ERIC.

### **Review 1 Syntax search strategy DARE**

Searches of the Database of Abstracts of Reviews of Effectiveness at the University of York were run looking for key terms wellbeing, independence AND older people, or loneliness in any field. This also included searches of the NHS Economic Evaluation Database for these terms.

### **Review 1 Syntax search strategy Social Care Online**

1. Older people [Subject Term]
2. Ageing [Subject Term]
3. Age Discrimination [Subject Term]
4. 1 OR 2 OR 3
5. Wellbeing [Subject Term]
6. Psychosocial Intervention [Subject Term]
7. Psychology [Subject Term]
8. Psychosocial approach [Subject Term]
9. Resilience [Subject Term]
10. Social Networks [Subject Term]
11. Independent Living [Subject Term]
12. Independence [Subject Term]
13. Quality of Life [Subject Term]
14. Happiness [Subject Term]
15. Mental Health [Subject Term]
16. Emotions [Subject Term]
17. Social Capital
18. Activities of Daily Living
19. Loneliness
20. Empowerment
21. Participation
22. Social Inclusion

23. Social Exclusion
24. Dignity
25. Choice
26. Isolated People
27. 5-26/OR
28. Internet
29. Computers
30. Befriending schemes
31. Social Media
32. Communication
33. Intervention
34. Intergenerational Relationships
35. 28-34/OR
36. 4 AND 27
37. 4 AND 36
38. 36 OR 37
39. Limit 38 2003-2014

Note: The Social Care Online strategy had to be run separately one year at a time due to the limit of 500 records that can be retrieved from this database.

### **Question 1 Syntax search strategy Google Scholar and Google**

Limited search for terms “mental wellbeing” OR “loneliness” OR “isolation” AND “older people” AND “evaluation”. First 20 pages of search results only examined for Google and Google Scholar

### **9. Search Strategy for Question 2**

**Searches were run in July and August 2014.**

### **Review 2 Syntax search strategy Medline**

171. Aged/

- 172. Retirement/
- 173. Elder\*.ti,ab
- 174. Frail\*.ti,ab
- 175. Geriatric\*.ti,ab
- 176. Gerontology.ti,ab
- 177. Seniors.ti,ab
- 178. Retire\*.ti,ab
- 179. Pensioner\$.ti,ab
- 180. (Later-life or later life) .ti,ab
- 181. (Late-life or late life) .ti,ab
- 182. Old age.ti,ab
- 183. "Old people" .ti,ab
- 184. "Older people" .ti, ab
- 185. Old person.ti,ab
- 186. Older person.ti,ab
- 187. (Older man) .ti,ab
- 188. (Older men).ti,ab
- 189. (Older woman or Older women) .ti,ab
- 190. Older male\$.ti,ab
- 191. Older female\$.ti,ab
- 192. (Old old or old-old) OR (Oldest old or Oldest-old).ti,ab
- 193. Very old.ti
- 194. (Senior Citizen OR Senior Citizens).ti,ab
- 195. Older adult\*.ti,ab
- 196. 1 OR 2
- 197. 3-25/OR
- 198. 26 OR 27
- 199. Psychological Resilience/
- 200. Psychological Adaptation/
- 201. Social Support/
- 202. Community Networks/
- 203. Independent Living/
- 204. Quality of Life/
- 205. Social Identification/
- 206. Happiness/
- 207. Mental Health/
- 208. Personal Satisfaction/
- 209. Social Distance/
- 210. 29-39/OR
- 211. Mental health.ti
- 212. Quality of life.ti

- 213. Emotional health.ti
- 214. Emotional capital.ti
- 215. Mental capital.ti
- 216. Wellness.ti
- 217. Wellbeing or Well-being or Well being.ti
- 218. Sense of coherence.ti
- 219. Activities of daily living.ti
- 220. Independent living.ti
- 221. (healthy ageing or healthy aging) .ti
- 222. (active aging or active ageing) .ti
- 223. happiness .ti,
- 224. meaningfulness.ti
- 225. resilien\*.ti
- 226. loneliness.ti
- 227. mastery.ti
- 228. locus of control.ti
- 229. capabilit\*.ti
- 230. empower\* .ti
- 231. social capital.ti
- 232. participation.ti
- 233. social support.ti
- 234. social contact.ti
- 235. civic engagement.ti
- 236. civic involvement.ti
- 237. community engagement.ti
- 238. sense of belonging.ti
- 239. psychosocial.ti
- 240. social inclusion.ti
- 241. social exclusion.ti
- 242. independence.ti
- 243. dignity.ti
- 244. choice.ti
- 245. isolation.ti
- 246. ADL\$ .ti
- 247. social relation\*.ti
- 248. family relation\* .ti
- 249. social activit\*.ti
- 250. civic activit\* .ti
- 251. 41-80/OR
- 252. 40 OR 81
- 253. 27 AND 82

- 254. Elder\*.ti
- 255. Frail\*.ti
- 256. Geriatric\*.ti
- 257. Gerontology.ti
- 258. Seniors.ti
- 259. Retire\*.ti
- 260. Pensioner\$.ti
- 261. (Later-life or later life) .ti
- 262. (Late-life or late life) .ti
- 263. Old age.ti
- 264. Old people.ti
- 265. Older people .ti
- 266. Old person.ti
- 267. Older person.ti
- 268. Older men .ti
- 269. Older man.ti
- 270. (Older woman or Older women) .ti
- 271. Older male\$.ti
- 272. Older female\$.ti
- 273. (Old old or old-old) .ti
- 274. Very old.ti
- 275. Senior Citizen or Senior Citizens.ti
- 276. Older adult OR older adults.ti
- 277. 84-106/OR
- 278. Mental health.ti,ab
- 279. Quality of life.ti,ab
- 280. Emotional health.ti,ab
- 281. Emotional capital.ti,ab
- 282. Mental capital.ti,ab
- 283. Wellness.ti,ab
- 284. Wellbeing or Well-being or Well being.ti,ab
- 285. Sense of coherence.ti,ab
- 286. Activities of daily living.ti,ab
- 287. ADL\$.ti,ab
- 288. Independent living.ti,ab
- 289. (healthy ageing or healthy aging) .ti,ab
- 290. (active aging or active ageing) .ti,ab
- 291. happiness .ti,ab
- 292. meaningfulness.ti,ab
- 293. resilien\*.ti,ab
- 294. loneliness.ti,ab

- 295. mastery.ti,ab
- 296. locus of control.ti,ab
- 297. capabilit\*.ti,ab
- 298. empower\* .ti,ab
- 299. social capital.ti,ab
- 300. participation.ti
- 301. social support.ti,ab
- 302. social contact.ti,ab
- 303. civic engagement.ti,ab
- 304. civic involvement.ti,ab
- 305. community engagement.ti,ab
- 306. sense of belonging .ti,ab
- 307. psychosocial.ti,ab
- 308. social inclusion.ti,ab
- 309. social exclusion.ti,ab
- 310. independence.ti,ab
- 311. dignity. ti,ab
- 312. choice.ti
- 313. isolation.ti
- 314. social relation\*.ti,ab
- 315. family relation\* .ti,ab
- 316. social activit\*.ti,ab
- 317. civic activit\* .ti,ab
- 318. 108-147/OR
- 319. 107 AND 148
- 320. 83 OR 149
- 321. barrier\* .ti,ab
- 322. benefit\*.ti,ab
- 323. block\*. ti,ab
- 324. collabor\*.ti,ab
- 325. constrain\*. ti,ab
- 326. cost\*.ti,ab
- 327. delay\*. ti,ab
- 328. determinant\*.ti,ab
- 329. enabler\*.ti,ab
- 330. encourag\* ti,ab
- 331. engage\*.ti,ab
- 332. facilitat\*.ti,ab
- 333. hinder\*. ti,ab
- 334. hindrance .ti,ab.
- 335. imped\*. ti,ab
- 336. incentive\*.ti,ab

- 337. inhibit\*. ti,ab
- 338. involve\*.ti,ab
- 339. motivat\*. ti,ab
- 340. obstacle\*. ti,ab
- 341. obstruct\*. ti,ab
- 342. promot\*.ti,ab
- 343. restrain\*. ti,ab
- 344. restrict\*. ti,ab
- 345. (uptake or take-up). ti,ab
- 346. (uptake or take up). ti,ab
- 347. 151-176/OR
- 348. 150 AND 177
- 349. Limit 166 (English language, abstract, year = "2003-2014")

**Review 2 Syntax search strategy Psychinfo**

- 171. (ZG "aged (65 yrs & older)") ((Index) term
- 172. DE Retirement (Major Concept)
- 173. Elder\*.ti,ab
- 174. Frail\*.ti,ab
- 175. Geriatric\*.ti,ab
- 176. Gerontology.ti,ab
- 177. Seniors.ti,ab
- 178. Retire\*.ti,ab
- 179. Pensioner\$.ti,ab
- 180. (Later-life or later life) .ti,ab
- 181. (Late-life or late life) .ti,ab
- 182. Old age.ti,ab
- 183. "Old people" .ti,ab
- 184. "Older people" .ti, ab
- 185. Old person.ti,ab
- 186. Older person.ti,ab
- 187. (Older man) .ti,ab
- 188. (Older men).ti,ab
- 189. (Older woman or Older women) .ti,ab
- 190. Older male\$.ti,ab
- 191. Older female\$.ti,ab
- 192. (Old old or old-old) OR (Oldest old or Oldest-old).ti,ab
- 193. Very old.ti
- 194. (Senior Citizen OR Senior Citizens).ti,ab
- 195. Older adult\*.ti,ab
- 196. 1 OR 2

- 197. 3-25/OR
- 198. 26 OR 27
- 199. DE "Resilience (Psychological)" (Major Concept)
- 200. DE "Emotional Adjustment" OR DE "Emotional Control" OR DE "Identity Crisis" (Emotional Adjustment Major Concept Exploded)
- 201. Social Support (Major Concept)
- 202. DE "Social Networks" OR DE "Online Social Networks"
- 203. DE "Self Care Skills"
- 204. DE "Quality of Life"
- 205. DE "Social Identity"
- 206. DE Happiness
- 207. DE "Mental Health" OR "Community Mental Health"
- 208. DE "Satisfaction" (Not exploded)
- 209. DE "Social Isolation"
- 210. 29-39/OR
- 211. Mental health.ti
- 212. Quality of life.ti
- 213. Emotional health.ti
- 214. Emotional capital.ti
- 215. Mental capital.ti
- 216. Wellness.ti
- 217. Wellbeing or Well-being or Well being.ti
- 218. Sense of coherence.ti
- 219. (Activities of daily living or ADL\$) .ti
- 220. Independent living.ti
- 221. (healthy ageing or healthy aging) .ti
- 222. (active aging or active ageing) .ti
- 223. happiness .ti,
- 224. meaningfulness.ti
- 225. resilien\*.ti
- 226. loneliness.ti
- 227. mastery.ti
- 228. locus of control.ti
- 229. capabilit\*.ti
- 230. empower\* .ti
- 231. social capital.ti
- 232. participation.ti
- 233. social support.ti
- 234. social contact.ti
- 235. civic engagement.ti
- 236. civic involvement.ti



- 237. community engagement.ti
- 238. sense of belonging.ti
- 239. psychosocial.ti
- 240. social inclusion.ti
- 241. social exclusion.ti
- 242. independence.ti
- 243. dignity.ti
- 244. choice.ti
- 245. isolation.ti
- 246. adl\$.ti
- 247. social n1 relation\*.ti
- 248. family n1 relation\* .ti
- 249. social n1 activit\*.ti
- 250. civic n1 activit\* .ti
- 251. 41-80/OR
- 252. 40 OR 81
- 253. 27 AND 82
- 254. Elder\*.ti
- 255. Frail\*.ti
- 256. Geriatric\*.ti
- 257. Gerontology.ti
- 258. Seniors.ti
- 259. Retire\*.ti
- 260. Pensioner\$.ti
- 261. (Later-life or later life) .ti
- 262. (Late-life or late life) .ti
- 263. Old age.ti
- 264. Old people.ti
- 265. Older people.ti
- 266. Old person.ti
- 267. Older person.ti
- 268. Older man.ti
- 269. Older men.ti
- 270. (Older woman or Older women) .ti
- 271. Older male.ti
- 272. Older female.ti
- 273. (Old old OR Oldest old).ti
- 274. Very old.ti
- 275. (Senior Citizen OR senior citizens).ti
- 276. (Older adult OR Older adults).ti
- 277. 84-106/OR

- 278. Mental health.ti,ab
- 279. Quality of life.ti,ab
- 280. Emotional health.ti,ab
- 281. Emotional capital.ti,ab
- 282. Mental capital.ti,ab
- 283. Wellness.ti,ab
- 284. Wellbeing or Well-being or Well being.ti,ab
- 285. Sense of coherence.ti,ab
- 286. (Activities of daily living or ADL\$) .ti,ab
- 287. Independent living.ti,ab
- 288. (healthy ageing or healthy aging) .ti,ab
- 289. (active aging or active ageing) .ti,ab
- 290. happiness .ti,ab
- 291. meaningfulness.ti,ab
- 292. resilien\*.ti,ab
- 293. loneliness.ti,ab
- 294. mastery.ti,ab
- 295. locus of control.ti,ab
- 296. capabilit\*.ti,ab
- 297. empower\* .ti,ab
- 298. social capital.ti,ab
- 299. social relation\*.ti,ab
- 300. family relation\* .ti,ab
- 301. participation.ti
- 302. social support.ti,ab
- 303. social contact.ti,ab
- 304. social activit\*.ti,ab
- 305. civic activit\* .ti,ab
- 306. civic engagement.ti,ab
- 307. civic involvement.ti,ab
- 308. community engagement.ti,ab
- 309. sense of belonging .ti,ab
- 310. psychosocial.ti,ab
- 311. social inclusion.ti,ab
- 312. social exclusion.ti,ab
- 313. independence.ti,ab
- 314. dignity. ti,ab
- 315. choice.ti
- 316. isolation.ti
- 317. 108-146/OR
- 318. 107 AND 147

- 319. 82 OR 148
- 320. barrier\* .ti,ab
- 321. benefit\*.ti,ab
- 322. block\*. ti,ab
- 323. collabor\*.ti,ab
- 324. constrain\*. ti,ab
- 325. cost\*.ti,ab
- 326. delay\*. ti,ab
- 327. determinant\*.ti,ab
- 328. enabler\*.ti,ab
- 329. encourag\* ti,ab
- 330. engage\*.ti,ab
- 331. facilitat\*.ti,ab
- 332. hinder\*. ti,ab
- 333. hindrance .ti,ab.
- 334. imped\*. ti,ab
- 335. incentive\*.ti,ab
- 336. inhibit\*. ti,ab
- 337. involve\*.ti,ab
- 338. motivat\*. ti,ab
- 339. obstacle\*. ti,ab
- 340. obstruct\*. ti,ab
- 341. promot\*.ti,ab
- 342. restrain\*. ti,ab
- 343. restrict\*. ti,ab
- 344. (uptake or take-up). ti,ab
- 345. (uptake or take up). ti,ab
- 346. 150-175/OR
- 347. 149 AND 176
- 348. editorials, comments, case reports, letters
- 349. 177 NOT 178
- 350. Limit 179 (English language, year = "2003-2014"

Similar strategies were run for Ageline, ASSIA and ERIC.

## **Review 2 Syntax search strategy DARE**

Searches of the Database of Abstracts of Reviews of Effectiveness at the University of York were run looking for key terms wellbeing, independence AND older people, or loneliness in any field. This also included searches of the NHS Economic Evaluation Database for these terms. This search strategy was the same as that for Review 1, no specific barriers terms were added because of the small number of records identified.

## Review 2 Syntax search strategy Social Care Online

40. Older people [Subject Term]
41. Ageing [Subject Term]
42. Age Discrimination [Subject Term]
43. 1 OR 2 OR 3
44. Wellbeing [Subject Term]
45. Psychosocial Intervention [Subject Term]
46. Psychology [Subject Term]
47. Psychosocial approach [Subject Term]
48. Resilience [Subject Term]
49. Social Networks [Subject Term]
50. Independent Living [Subject Term]
51. Independence [Subject Term]
52. Quality of Life [Subject Term]
53. Happiness [Subject Term]
54. Mental Health [Subject Term]
55. Emotions [Subject Term]
56. Social Capital
57. Activities of Daily Living
58. Loneliness
59. Empowerment
60. Participation
61. Social Inclusion
62. Social Exclusion
63. Dignity
64. Choice
65. Isolated People
66. 5-26/OR
67. Internet
68. Computers
69. Befriending schemes

- 70. Social Media
- 71. Communication
- 72. Intervention
- 73. Intergenerational Relationships
- 74. 28-34/OR
- 75. 4 AND 27
- 76. 4 AND 36
- 77. 36 OR 37
- 78. Limit 38 2003-2014

Note: The Social Care Online strategy had to be run separately one year at a time due to the limit of 500 records that can be retrieved from this database. No specific barriers or facilitators terms were added because of the limited functionality of this database and the de facto the same results were found as for review 1 – the only difference was that this search was run later in 2014 compared to that for Review 1.

### **Review 2 Syntax search strategy Google Scholar and Google**

Limited search for terms (“mental wellbeing” OR “loneliness” OR “isolation”) AND “older people” AND (“barriers” OR “facilitators” OR “motivation”). First 20 pages of search results only examined for Google and Google Scholar