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Evidence assessment and narrative synthesis of the key characteristics of older people living in Service-Integrated Housing facilities, and their 'accommodation journey'

Journal:	<i>Housing, Care and Support</i>
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Keywords:	Service-integrated housing, sheltered accommodation, assisted living, older people, care of older people, literature review

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3 **Title: Evidence assessment and narrative synthesis of the key characteristics of older**
4 **people living in Service-Integrated Housing facilities, and their ‘accommodation**
5 **journey’**
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7

8 **Abstract**
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10 **Purpose:** To provide an evidence assessment and narrative synthesis of literature regarding
11 the key characteristics of older people living in Service-Integrated Housing (SIH) facilities,
12 and their ‘accommodation journey’.
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15 **Design:** A rapid evidence assessment was conducted: 22 research publications met the
16 inclusion criteria and were analysed using narrative synthesis.
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19 **Results:** The quality of studies in this area is low, but consistency across components of the
20 results of studies included in the review is apparent. Results suggest key characteristics of
21 older people that drive moves into SIH are a decline in health, increased dependency,
22 increased health service use, and carer burden. Suggested key characteristics of SIH
23 residents are high levels of health problems, dependency, and health service use, but high
24 self-reported health and well-being. Results indicate that the key driver for older people
25 leaving SIH is lack of workforce competency to manage further declines in health and
26 dependency status.
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33 **Research implications/limitations:** Current policy may not realise or account for the
34 complex health and care needs of SIH residents. Investment into integrated care, robust
35 community health services and workforce development to facilitate a comprehensive
36 assessment approach may be required to support residents to remain in SIH and live well.
37 Further longitudinal studies are required to map the progression of SIH residents’ health
38 status in detail over time to provide understanding of preventative and enablement support,
39 development of care pathways, and workforce planning and development requirements.
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45 **Originality:** This evidence assessment is the first to consider the accommodation journey of
46 older people residing in SIH.
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49 **Keywords**

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51 Service-integrated housing; sheltered accommodation; assisted living, older people, care of
52 older people, literature review, rapid evidence assessment
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Background

In the wake of an ageing population, in Europe, East Asia, Australasia and the Americas, there is a rising demand on health and social care services to support growing numbers of older people living with complex care needs including multi-morbidities and frailty (for example, United Nations, 2002; World Health Organisation, 2011; Gordon et al., 2014; Kingston et al., 2018). In these regions, it is increasingly acknowledged that a key aspect of care for older people is the provision of a range of specialist housing models that include care services (Yu & Lee, 2017). Used appropriately, these housing models can support older people to live independently and reduce the need for social care (Stula, 2012; UK House of Commons, 2018). Howe et al. (2013) devised the term 'service-integrated housing' (SIH) as an overarching term to describe accommodation where support services and/or care for residents are incorporated within housing for older people. SIH is either owned or rented accommodation specifically designed to provide safe, accessible living environments and support services in order to facilitate residents' independent living. The level of support offered varies depending on the individual housing model, but usually ranges from the provision of warden and emergency alarm support (sheltered accommodation), to the provision of meals, social activities, personal care and domestic support (assisted living or extra care) (Howe, 2013).

The significance of the role of SIH to supporting independence is such that legislation and government policies are now promoting SIH as fundamental to integrated care provision (Bligh & Kerlake, 2011). In England, for example, a joint action to 'improving health through the home' agreed between government departments, the Association of Directors of Adult Social Services, the National Health Service England (NHSE), Public Health England (PHE), and the Homes and Communities Agency (HCA), called for local authorities to proactively shape the market for older people's accommodation by providing alternatives to institutional care, and developing a variety of accommodation to match the needs and choices of local populations (Great Britain, Department of Health and Social Care, 2014). In response, legislation (*Care Act, 2014*) and government policy (Great Britain, Department for Work and Pensions, 2020) require social housing providers and local authorities to cooperate and collaborate in planning SIH that meets local need, is safe and of good design and quality, and provides value for money. Furthermore, SIH has been aligned with social care, personalised care and service transformation agendas that position older people at the centre of an integrated housing, health and social care process (Great Britain, Department

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3 for Communities and Local Government 2008; Great Britain, Department of Health 2010;
4 Laing and Buisson 2020).

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7 According to a UK Local Government Association (2017) report, SIH is appealing to older
8 people who wish to downsize prior to functional deterioration as SIH provides care support,
9 but residents live independently within their own homes. The report also proposes that there
10 are SIH benefits for local authorities. This is because as older people move into SIH, there is
11 potential for their 'family-sized' homes to be released into the housing market. Also,
12 providing care support in SIH is more efficient than home-care provision for older people
13 ageing in place, and more cost-effective than residential and nursing home care.
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18 In European countries, between 5% and 10% of older people live in SIH, with between 0.6%
19 and 5% living in assisted living SIH (AL SIH) (Pannell & Blood, 2012; ARCO, 2017), but
20 demand for SIH is increasing. In England for example, a Centre for Towns survey found that
21 69% of people aged over 55 years reported that when making decisions about moving
22 house, a strong consideration is that their new accommodation should provide for their
23 current/future health and functional needs (Sterne et al., 2019). As a consequence of higher
24 demand, SIH building and adaptation projects are increasing across Europe (Stula, 2012).
25 Similarly, SIH is increasing in the USA (Silver et al., 2018). It might be expected that as a
26 result of this increase in SIH, uptake of care home places for older people would reduce.
27 However, Silver et al.'s (2018) study of the prevalence of AL SIH as a substitute for
28 private-pay long-term nursing care found that while private-pay AL SIH beds per county
29 increased by 13.7%, nursing homes experienced only a small decrease in residents from
30 20.1% to 17.7%, and a small decrease in resident days from 21.3% to 17.5%. This may
31 suggest that limited numbers of older people with declining health and function are living in
32 AL SIH instead of nursing homes, or AL SIH living only marginally delays nursing home
33 admission.
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45 Admission to nursing and residential care homes from SIH is common. A report for the
46 Joseph Rowntree Foundation analysing the UK 'Supporting People Household Units' public
47 data found that 98% of SA SIH residents in rented accommodation intended their SA SIH to
48 provide a 'home for life' (Pannell & Blood, 2012). However, the report identified that a
49 significant number of residents do move out of SA SIH. For example, the document reports
50 on the outcomes of older tenants of a large SA SIH provider. Within the first year of tenancy,
51 18% of tenancies ended. Reasons were: death (27%), moves to AL SIH (34%), moves to
52 nursing or residential care (21%). Kneale et al.'s (2013) UK study of older people's care
53 transitions to care homes in nine AL SIH facilities showed that within 5 years of moving in,
54 8.2% of residents moved into nursing homes, and 25% died, often in hospital. For residents
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3 over 85 years old, this increased to 12.7% moving into a nursing home, while 49% died.
4 McGrail et al.'s (2013) **Canadian** study of the AL SIH population's characteristics and length
5 of stay found that a quarter of residents leave AL SIH within a year for more intensive
6 facilities such as nursing homes and residential care homes. The study also found that only
7 a third of residents die in AL SIH facilities, while two thirds die in either hospital, or residential
8 or nursing homes.
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13 **In global regions with ageing populations such as Europe, East Asia, North America and**
14 **Australasia, numbers of SIH facilities are increasing, and government policies and service**
15 **providers promote SIH as an attractive, cost-effective accommodation option for older**
16 **people, where they can live for the remainder of their lives.** However, the reality is that for a
17 significant number of residents, a move to other care facilities providing more intensive
18 support or end-of-life care is required. If SIH is to be used effectively as an accommodation
19 option for this population, it is essential to have an understanding of residents' health and
20 wellbeing needs, from their intention to move into SIH to the end of their residency. It is also
21 important to understand the health and wellbeing needs of both AL SIH residents and SA
22 SIH residents to determine similarities and differences. The purpose of this review was to
23 ascertain what is known about the key health and wellbeing needs characteristics and
24 'accommodation journey' of older people living in AL SIH and SA SIH in order to inform
25 service providers', service commissioners' and policy makers' plans for SIH service
26 provision.
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36 **Aim**

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38 The aim of this evidence assessment and narrative synthesis was to undertake a
39 comprehensive search of **the international** research evidence base to identify the key health
40 and care needs characteristics of older people living in SIH facilities, and their
41 'accommodation journey'.
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45 **Method, search strategy and data sources**

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47 To address the aim, a structured, rigorous rapid evidence assessment using a narrative
48 synthesis approach was undertaken of research literature. A rapid assessment approach is
49 appropriate in circumstances where the time frame of the study is restricted, for example, by
50 time frames determined by service providers, commissioners or policy makers. This review
51 was undertaken as part of a wider study to profile the progression of healthcare needs of
52 older people residing in SIH facilities in the locality. The wider study will be used to inform
53 service provision in the near future and as such, the timeframe is limited. The rapid
54 assessment approach is rigorous and systematic, but takes legitimate steps to limit the
55 breadth of the review so that it is achievable within a shorter timeframe. Steps include a
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3 literature search that is systematic and precise but focuses explicitly on the review question;
4 restricting or excluding grey literature, and performing a 'simple' quality appraisal of the
5 items included (Grant & Booth, 2009). These steps go some way to mitigate against the
6 main perceived weaknesses of rapid assessments i.e. risk of publication bias, and
7 inattention to appraisal.
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11 The narrative synthesis approach describes, explains and summarises results of the
12 literature, and is appropriate for reviews that include data from different study designs
13 including qualitative designs and previous literature reviews. Systematic reviews have been
14 criticised for being too rigid and narrow, and not accounting for the legitimate information
15 derived from qualitative studies investigating experiences and views of participants
16 (Snilstveit et al., 20012). The primary perceived weakness of the narrative synthesis
17 approach is that there is a lack of clarity and guidance about how to conduct the synthesis
18 and appraise the items included (Mays, 2005). However, more recently, Ryan (2013) and
19 Popay et al. (2006) have provided guidance about conducting narrative synthesis in a more
20 systematic and transparent way using a process of grouping studies into clusters; assessing
21 methodological quality, and exploring/identifying relationships between studies to arrive at
22 results and recommendations. In this review, primary clusters were outcomes relevant to
23 residents' accommodation journey, i.e. factors influencing moves to SIH, health and
24 wellbeing characteristics of older people while living in SIH, and factors influencing moves
25 out of SIH. Secondary clusters were aims or phenomena of interest. Methodological quality
26 was assessed using the Evidence for Policy and Practice Information Centre (EPPI)
27 approach. According to Popay et al. (2006), this is a simple but appropriate approach for
28 narrative synthesis reviews that include qualitative methodologies as well as quantitative.
29 Studies' trustworthiness, appropriateness of design, and relevance to the literature review
30 aims are assessed on a scale of 1=high, 2=medium, 3=low. Overall weight for each item is
31 then calculated. Consistency of results outcomes was investigated via the following
32 activities:
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- 47 • mapping study results in order to identify common results across studies. For
48 example, during the mapping exercise, it became apparent that a number of
49 characteristics were common to a number of studies, such as high levels of health
50 problems, high dependency, high use of health services, the presence of dementia,
51 and carer burden.
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- 53 • b) methodological triangulation to explore whether studies with different designs had
54 consistent or inconsistent results components. Consistent/common results identified
55 by activities a) and b) informed results of the review.
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- c) textual description to provide a richer, in depth description of results (Popay et al., 2006).

In order to identify items for review, databases were selected that would be likely to include studies relating to the care of older people and SIH health and care services and facilities.

The following databases were therefore searched: AMED which focuses on occupational therapy, rehabilitation and care at home, including SIH as home; CINAHL, which covers nursing and allied health care in all services including social care and home care; PROQUEST, which includes health and medicine, including care of older people, interdisciplinary studies, including integrated care and care crossing different sectors, and sociology and social change, including ageing populations and housing; Cochrane Reviews, which include effective practice and organisation of care, and supportive care; and Medline, which focuses on medicine, including geriatric medicine. Articles published in English from 2010 to 2020 (the period since the introduction of the *Vision for Adult Social Care* policy (Great Britain, Department of Health, 2010) facilitating older people to have control and choice about services they access) were searched using the following MeSH terms and free words:

'older people', 'older adults', 'elderly people', 'geriatric(s)', 'retired', 'retirement', 'senior citizen(s)', 'pensioner(s)', 'residents', 'aged 65 or 65+'

AND

'assisted living', 'sheltered accommodation', 'sheltered housing', 'extracare', 'community care', 'care plus', 'supported housing', 'supported living', 'service-integrated housing'.

NOT

'technology', 'ambient' (to exclude studies that focus on assistive technology)

Results

Item Selection

The initial search led to the identification of 1,710 records. The research team screened the titles of the identified items. Duplicates and false hits were removed (e.g. those which focused on assistive aids, housing, home care, residential care, nursing homes). After this process, 351 items remained. Records were then excluded if they (a) did not investigate the explicit aim of the evidence assessment; (b) did not include a research method that described or assessed resident health and wellbeing profiles; (c) were already reviewed in literature reviews included in this review; (e) not written in English. Following the initial review of the identified items, 74 records were selected for further screening based on title,

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3 abstract then full article assessment. This process resulted in 22 articles being included in
4 the review (see figure 1).
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6 7 **Figure 1: Article selection process**

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9 **INSERT FIGURE 1 HERE**

10 11 ***Methodological quality***

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13 Using the EEPI assessment of validity approach, Gilbert et al.'s (2015) mixed research
14 integrative literature review was assessed as being of medium quality. All other studies
15 included were of low quality (see <http://doi.org/10.25398/rd.northumbria.16610479.v1>).
16
17 However, the activity to investigate consistency of results indicated that consistency across
18 the studies was apparent with regard to a number of results components (see
19 <http://doi.org/10.25398/rd.northumbria.16610479.v1>). This suggests that some results are
20 meaningful, and can inform debate about SIH residents, and care required to meet their
21 needs.
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27 Of the items reviewed, 16 were primary research studies which considered assisted living
28 SIH (AL SIH), 5 were primary research studies which considered sheltered accommodation
29 SIH (SA SIH), and 1 was a literature review that included both AL SIH and SA SIH studies.
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32 33 ***Factors influencing moves to SIH***

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35 Eight studies explored factors influencing moves into SIH. Using a range of designs, five of
36 these investigated factors influencing older people's decisions to move to SIH. These studies
37 consistently reported that increased dependency and carer burden were important push
38 factors. They also reported that AL SIH admission was influenced by pull factors such as AL
39 SIH staff support and supervision, safe and accessible access to living accommodation, and
40 access to social activities. However, none of the studies included discussion of SA SIH pull
41 factors, suggesting that there was a dearth of research regarding pull factors influencing SA
42 SIH admission. Three studies of association and predisposing factors for moving to SIH
43 consistently indicated that decline in health (including dementia diagnosis), increasing use of
44 health services and increasing dependency were important factors. However, these three
45 studies all used secondary data analysis designs, and consistency was limited as they
46 considered different populations (one examined SA SIH, and the other two AL SIH).
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55 Gilbert et al.'s (2015) mixed integrative literature review of factors influencing older adults'
56 relocation to SIH found a motivation for moving was decline in health and increasing frailty,
57 regardless of the type of SIH. Increased dependency demonstrated by reduced ability to
58 cope with housekeeping activities was also an important factor. These 'push factors' were
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3 exacerbated where there were inconsistencies in family support, or unwillingness on behalf
4 of older people to move in with family. The study identified 'pull' factors for AL SIH. Most pull
5 factors arose because AL SIH provided continuous supervision, on-site care and support,
6 and accessible living environments.
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10 Baumker et al.'s (2011) survey of demographic factors and health characteristics influencing
11 older people's move decisions in England found that increasing dependency due to
12 problems with coping with daily tasks and lack of adequate home support services were
13 important factors in the decision to move to AL SIH. Pull factors included a secure
14 environment, availability of social activities and communal facilities, availability of onsite care
15 and support, and accessible accommodation i.e. facilities and services that contribute to
16 maintaining independence for people with declining function.
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22 Three qualitative studies using interviews with SIH residents reported similar findings.
23 Johnson et al.'s (2019) UK qualitative longitudinal study found that moving into AL SIH was
24 commonly a reactive decision prompted by increasing dependency and inability to cope at
25 home. The study found that fear of being a burden on family was a motivator for some older
26 people to move to AL SIH. Also, family members often encouraged a move due to not
27 coping with increasing care responsibilities arising from their older relatives' declining health
28 and function. Koenig et al.'s (2014) USA study found that difficulties in self-management of
29 medications, bathing and dressing, and managing household tasks such as cooking,
30 cleaning and laundry were significant AL SIH push factors. These participants were afraid of
31 becoming a burden on family, so moved into AL SIH. Koenig et al. (2014) found that pull
32 factors for moving into AL SIH included a secure environment, and availability of social
33 activities and communal facilities. Buckland and Tinker's (2020) study found that older
34 people's decisions to move to AL SIH were often prompted by health deterioration, or
35 sudden illness events, and for some older people, a consequent fear of being a burden on
36 family. This study however, also found that upon moving into EC SIH, older people enjoyed
37 improved wellbeing. The authors proposed that this resulted from staff providing support with
38 medication administration, maintaining independence, and providing social and community
39 activities which improved residents' mental and social health.
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51 Three studies investigated associations between transitions to SIH and health and
52 dependency characteristics of older people. Vlachantoni et al.'s (2016) longitudinal study of
53 secondary data from England and Wales examined associations of transitioning into SA SIH
54 with a range of demographic, health and socioeconomic predictors. The study found a
55 significant association for older people's move to SA SIH was their increasing use of primary
56 care services due to deterioration in their health and increasing frailty. Increased
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3 dependency due to reduced ability to cope with housekeeping activities was also significant.
4 Rockwood et al. (2014) undertook a cross-sectional descriptive survey of admission records
5 and deterioration and dependence scales of AL SIH residents and nursing home residents.
6 The study then compared predisposing events and symptoms for admissions to AL SIH with
7 nursing home admission. Results showed that while older people move to nursing homes
8 with high dependence and severe dementia, those moving into AL SIH are not simply 'the
9 worried well'. Rather, their move decisions are precipitated by dementia diagnosis, recent
10 hospitalisation, and impaired health, and decline in self-management of activities of daily
11 living. The study also found that in some cases, family care-giver stress or illness led to a
12 move to AL SIH for the older person. McGrail et al.'s (2013) study described the AL SIH
13 population's characteristics in a region of Canada. The study found that older people's use of
14 healthcare services tended to increase before the move to AL SIH, and that 24% of AL SIH
15 residents have a diagnosis of dementia within the first year of moving in. The study also
16 noted a wide use of benzodiazepines and atypical antipsychotics for this population upon
17 moving in. This may indicate a reliance on medication rather than non-pharmacological
18 therapies to support the care of residents with dementia.
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Health and wellbeing characteristics of older people while living in SIH

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31 Eleven studies explored the health and wellbeing characteristics of older people while living
32 in SIH. A range of cross-sectional studies, mixed methods and qualitative studies
33 consistently reported that both AL and SA SIH residents had significant health problems
34 including multi-morbidity and dementia, had high levels of dependency, and their levels of
35 healthcare service use were high. Studies that included self-reporting surveys of wellbeing
36 consistently found that scores were high. One cross-sectional study indicated that SA
37 residents' quality of life was low compared to people ageing in place, but this was not found
38 in any other study. There was also indication from one study that AL SIH struggle to meet
39 residents' increasing healthcare needs.
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46 Darton et al's (2012) survey compared the characteristics of AL SIH and care home
47 residents in England. The study found that while people living in AL SIH were younger and
48 less physically and cognitively impaired than those living in care homes, rates of functional
49 problems were nevertheless apparent, and a significant minority of residents had high levels
50 of dependency. Maxwell et al.'s (2015) Canadian mixed methods study aimed to identify
51 hospitalization risk of AL SIH residents with dementia compared to long term care residents
52 with dementia. The study found that although rates of dementia were higher in the nursing
53 home population (71%), a significant proportion of AL SIH residents had dementia (57%).
54 Results showed that despite rates of dementia being higher in nursing homes, the non-
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3 elective hospitalization rate of AL SIH residents with dementia was almost 4-fold higher than
4 in long term care. This may suggest that AL SIH facilities are less equipped to manage the
5 care needs of residents with dementia than nursing homes.
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8 Comparisons between SIH resident characteristics and those living in place included Kistler
9 et al.'s (2017) USA study. Using co-morbidity and mortality indices to survey health status,
10 the study found that the AL SIH population was less healthy than community-dwelling older
11 adults. Four comparative studies also found that SIH residents were less healthy and had
12 less functional ability than older people living in place, but perhaps paradoxically, had better
13 self-reported health and wellbeing than participants living in place. Gaines et al.'s (2011)
14 USA longitudinal study compared characteristics of AL SIH and home dwellers. Results
15 showed that AL SIH residents had more chronic diseases than those living at home, and
16 used more home-based services and healthcare services. The study also identified that
17 despite this, AL SIH residents had better self-reported health. The authors suggested this
18 may be because AL SIH participants were comparing themselves with older or more infirm
19 residents within their facilities. Similarly, Fox et al.'s (2017) survey of older people's housing
20 needs in Ireland found that older people living in SA SIH accessed health services more
21 frequently than those living at home. However, this study found that SA SIH residents
22 reported better health status. The authors proposed that this may reflect the effect of SA SIH
23 services on perceived health. Corneliusson et al.'s (2019) cross-sectional survey examined
24 the health, and health-related quality of life among residents in SA SIH, compared to ageing
25 in place in Sweden. Results showed that SA SIH residents had more problems with mobility,
26 self-care, usual activities, and pain/discomfort. They were more dependent concerning both
27 activities of daily living, and instrumental activities of daily living, resulting in difficulties in
28 managing household tasks. Also, they more frequently reported problems with anxiety and
29 depression, and had lower self-reported quality of life, but their self-reported wellbeing was
30 higher. In a paper reporting on another aspect of the same study, Corneliusson et al. (2020)
31 attempted to explain this paradox. They proposed that accessibility to increased safety and
32 better home design/adaptations, and opportunities for meaningful activity in SA SIH
33 contributed to residents' wellbeing. Avery et al. (2010) undertook a study in the USA to
34 identify what health and functional status variables separate older AL SIH residents from
35 older people living at home. The study found that AL SIH residents walked significantly
36 shorter distances over six minutes, had lower Mini-Mental State Exam (MMSE) and higher
37 Center for Epidemiological Studies Depression Scale (CES-D) scores indicating lower
38 functional, cognitive and mental health. The study also found AL SIH residents had
39 significantly lower serum 25-OH vitamin D levels indicating poor diet, long periods of time
40 spent indoors, and higher risk of developing vitamin deficiency-related health problems.
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3 These in turn may indicate that poor function and health had a detrimental impact on
4 residents' ability to self-care, or that challenges in self-care negatively impacted on function
5 and health. In either case, these results could indicate that the SIH care provided was not
6 adequately addressing residents' health and wellbeing needs.
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10 Three studies describing the health, wellbeing and functional characteristics of older people
11 while living in SIH did not take a comparative approach. A mixed methods study located in
12 England by Cook et al. (2016) investigated SA SIH residents' perceptions of well-being and
13 their usage of hospital services. The study found that residents of SA SIH were likely to have
14 chronic conditions, with arthritis, heart and respiratory conditions being most common.
15 Residents were also likely to require unscheduled hospital admission. Shaw et al.'s (2016)
16 UK longitudinal qualitative study of older people's experiences of living in EC SIH found that
17 their health and frailty over time deteriorated. Similar to the results of Gaines et al. (2011),
18 Fox et al. (2017), and Corneliusson et al. (2019; 2020), participants in Shaw et al.'s (2016)
19 study reported that despite their health decline, where care staff supported them to engage
20 in meaningful activity and social interaction, residents perceived themselves as living well.
21 Han et al. (2016) reviewed secondary data from the USA National Survey of Residential
22 Care Facilities. The review found that 80% of AL SIH facilities reported that more than 95%
23 of their residents had a cognitive impairment, and residents were likely to have urinary
24 incontinence, need help in emergencies, and require mobility support and medication
25 support. This study also investigated the profile of care staff working in AL SIH facilities, and
26 found that despite residents having considerable care needs, 60% of staff had limited formal
27 training in caring for older people with complex needs.
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39 ***Factors influencing moves out of SIH***

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41 Three studies using different designs investigated factors influencing residents' moves out of
42 AL SIH. All proposed that the AL SIH workforce, which is primarily comprised of non-
43 registrant care staff, do not have the necessary skills to care for older residents with
44 increasingly complex health needs including dementia. No studies explored factors
45 influencing moves out of SA SIH.
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50 Maxwell et al.'s (2013) Canadian study aimed to identify predictors of nursing home
51 admission from AL SIH facilities. The study found an increased risk of nursing home
52 placement for older AL SIH residents with increasing cognitive and/or functional impairment,
53 increasing health instability, recent falls, recent hospitalizations/emergency department
54 visits, and severe bladder incontinence. However, risk of nursing home placement was lower
55 for residents living in large AL SIH facilities that employed licenced or registered nurses, or
56 who were affiliated with a GP. Maxwell et al. (2013; 2015) concluded that AL SIH facilities
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3 with no licensed or registered nursing staff (i.e. most SIH facilities) struggle to adequately
4 address the needs of residents with complex health challenges and high dependency.

5 Cameron et al.'s (2020) qualitative study of residents' experiences of living in EC SIH
6 agreed, concluding that many residents, as well as staff, were concerned that staff could not
7 cope with some of the additional needs that residents often experienced as their health and
8 function declined over time. This precipitated moves to more intensive care support. Sloane
9 et al. (2011) studied physicians' perceptions and experiences of care in AL SIHs. The study
10 found that physicians have lower confidence in AL SIH care staff's ability to adequately
11 assess/monitor the needs of older people with increasingly complex conditions, leading to a
12 higher likelihood of physicians referring residents to hospital, and recommending moves to
13 nursing homes.
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21 **Discussion**

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23 Using the EPPI methodological quality assessment approach, overall, the quality of the
24 studies included in the literature was low. Although a limitation of the review results,
25 mapping the components of the results, methodological triangulation and textual description
26 highlighted areas of consistency across study results. This suggests that in these areas,
27 results may be meaningful, and may inform debate about SIH residents, and care required to
28 meet their needs.
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33 as well as areas of weakness, and where further research is required.
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36 ***Factors influencing moves to SIH***

37 The studies reviewed that focus on factors influencing moves to SIH primarily use the 'push
38 and pull framework' as their theoretical base (Lee, 1966). This framework highlights that
39 inadequate aspects of the original living environment (push factors) work together with the
40 attractions of the new environment (pull factors) to explain why people move. However, the
41 results of the review indicate that push factors are the primary reasons behind SIH move
42 decisions. This suggests that older people move for reactive reasons i.e. reaction to health-
43 related events and high dependency, rather than for proactive reasons such as downsizing
44 and anticipating future support to maintain independence as suggested by policy statements
45 (for example, UK Local Government Association, 2017). The potential mismatch between
46 what policy-makers expect SIH resident health status to look like and their actual health
47 status could mean that SIH is not adequately prepared to address the complex needs of
48 residents.
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56 ***Health and wellbeing characteristics of older people while living in SIH***

57 The review also indicated characteristics of SIH residents. Results suggest that SIH
58 residents have significant dependency levels and high levels of multi-morbidity which may
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3 explain their utilisation of high levels of referrals to healthcare services. However, the
4 majority of SIH are care support staff, rather than registered professional staff. The review
5 suggested that AL SIH staff may not have been trained, or have the skills to support the
6 management of complex needs of residents in-house, thus referring to external care
7 services. The review also indicated frequent use of anti-psychotic and sedative medications
8 and high rates of hospital admissions for residents with dementia. This suggests that SIH
9 residents may not be accessing care from staff with skills in caring for people with dementia
10 and cognitive impairment, and using non-pharmacological interventions in dementia care.
11 Also, high prevalence of depression suggests that residents may not have access to skilled
12 geropsychiatric or gero-mental health staff, or staff are failing to effectively treat mental
13 health conditions.
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21 Despite the health and functional challenges faced by SIH residents, studies investigating
22 residents' self-reported health and wellbeing consistently reported that this was high, which
23 may be due to having access to safe and supported living. This suggests that SIH does
24 provide the care support and benefits as current policy describes and expects (for example,
25 Great Britain, Department for Work and Pensions, 2020), but that these policies have not
26 recognised or accounted for the reactive health reasons why people move to SIH, or the
27 severity of health and functional problems that SIH residents have, reinforcing the mismatch
28 between residents' expected and actual needs.
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35 ***Factors influencing moves out of SIH***

36 Lawton and Nahemow's (1973) person-environment theory proposes that an older person's
37 deterioration in health and function results in a poor fit between their health needs and their
38 living environment. This leads to the risk of further decline and/or the requirement to move to
39 a more supportive environment. The literature reviewed that focuses on factors influencing
40 moves out of SIH uses this theoretical perspective to identify the weaknesses of SIH as care
41 environments. However, results of the review suggest that it is the workforce working in and
42 into SIH, rather than the SIH physical environment that is the source of the person-
43 environment misfit. Despite residents' intentions that SIH will provide a 'home for life',
44 Pannell and Blood (2012), McGrail et al. (2013), and Kneale et al. (2013) found significant
45 numbers of SIH residents move to more intensive care facilities such as nursing homes, and
46 Silver et al. (2018) found that increases in SIH utilisation does not have a corresponding
47 impact in care home utilisation. With regard to AL SIH, the results of this review suggest that
48 this may be because the AL SIH workforce does not have the competency, or support from
49 primary care services to meet the needs of residents with declining health and functional
50 status, and increasing frailty.
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The need for comprehensive care

Recent governments appear to perceive SIH as primarily addressing pull factors i.e. SIH should provide safe, convenient, accessible, easily manageable accommodation, that appeals to downsizers, people anticipating future care needs, or people requiring support with personal care. The literature included in this review, however, use push/pull and person-environment theoretical frameworks to emphasise resident health needs within the context of SIH. The juxtaposition of a 'pull factors' approach and 'health needs' approaches highlights that the development of SIH as accommodation with care is not entirely successful, as governments' focus on pull factors fails to account for the significant complex health needs of this older population. With regard to the care home sector in England, this problem was acknowledged in 2015 when the National Health Service (NHS) introduced the Enhanced Health in Care Homes plan as part of the New Models of Care initiative (NHS, 2016). The plan required that care home care models should be designed around what residents want and need with regard to healthcare as well as accommodation with care support.

Significantly, this requires a redesigning of the workforce around resident need in order to offer residents better, joined up healthcare and rehabilitation services. In many respects, the plan reflects healthcare services' realisation that effective care for older people requires a competent workforce using an integrated, holistic approach based on 'comprehensive assessment' that includes assessment and intervention regarding medical needs, cognitive and psychological needs, functional needs, social needs and environmental needs (British Geriatrics Society, 2019). Similar new models have emerged in care homes in other countries. Medicare Advantage Institutional Special Needs Plans in the USA (McGarry and Grabowski, 2019), and nurse practitioners in care homes in Canada (Kilpatrick et al., 2020) integrate medical care and social care, for example by increasing the numbers of expert clinicians working on site alongside social care staff to provide comprehensive care. The results of this literature review suggest that a comprehensive approach may be required for the SIH sector too.

Workforce development

At present, models of care such as the Enhanced Health in Care Homes plan in England do not include the SIH sector. According to Anderson et al. (2018), provision of a quality effective SIH sector depends on ensuring investment into integrated care and robust community health services. However, accessing primary care expertise to support SIH residents with multi-morbidity, frailty, dementia and complex needs is challenging. The current systems of working and healthcare professional training focus on single condition care, which does not adequately address the complex needs of SIH residents (Frenk et al., 2010; Greenaway, 2013). Roller- Wirnsberger et al.'s (2018) report on the workforce caring

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3 for older people in twenty two European countries calls for a fully competent, integrated and
4 co-ordinated, multi-disciplinary workforce that can support the comprehensive health and
5 care needs of older people with multi-morbidity and frailty. Foley and Luz's (2021)'s review of
6 government and professional organisation documents and workforce data in the USA agree,
7 and argue for a sizeable workforce trained in all aspects of integrated gerontological care.

8 Initiatives such as the Enhanced Care of Older People workforce strategy (Thompson et al.,
9 2018) are supporting integrated workforce planning across sectors, professions and roles in
10 an attempt to upskill the workforce across the system, but is essential that such initiatives
11 include opportunities for SIH staff development as well as community and primary care staff
12 working into SIH.

13 With regard to SIH staff, as with much of the social care workforce across the UK, Europe
14 and USA, they have received limited investment in terms of working conditions and career
15 development. In the UK, the SIH workforce is under pressure due to high vacancy rates, and
16 attrition and high staff turnover are exacerbated by zero-hour contract employment policies
17 with no guaranteed income, and/or low pay (Fenton et al., 2020). In turn, high vacancy rates
18 can lead to reliance on temporary staff which impacts on consistency, and quality of care
19 (Gilster et al., 2018). It is essential that investment into SIH staffing is prioritised, if the sector
20 is to offer the support required for residents with complex needs.

21 ***Implications for research, policy and practice***

22 Although the approach to this literature review was systematic, the limitations of the rapid
23 evidence assessment approach must be acknowledged. Further full systematic reviews
24 and/or meta-analyses are therefore recommended. The results of this review indicate that
25 both AL and SA SIH residents may have a number of similar characteristics. However, there
26 is a lack of research regarding SA SIH admission pull factors. There is also a dearth of
27 research investigating factors influencing moves out of SA SIH, and whether workforce
28 issues impact on these factors. In addition, although four longitudinal studies were identified
29 by the review, two are qualitative studies, one focuses on transitioning into SIH, and the
30 other is a comparative study of home dwellers' and SIH residents' health status. The review
31 indicates that further longitudinal studies are required to map and explain the progression of
32 SIH residents' health status and health and social care service use in detail over time. As a
33 consequence of this finding, the review authors are undertaking a retrospective study of SIH
34 residents' health and social care records and service input from pre-admission to termination
35 of SIH residency to identify the relationship between care provided and residents' outcomes.
36 This will provide understanding of preventative and enablement support, development of
37 care pathways, and workforce planning and development requirements to support SIH
38 residents.

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3 The results of the review suggest that reasons for moving in SIH are likely to be reactive.
4 This strengthens the need for health and social care policy to focus on ensuring integrated
5 pathways, resources and appropriately trained staff are in place to support older people at
6 every stage of their care journey i.e. facilitating people to remain safely in their own homes
7 as long as possible, support older people to anticipate and plan for moves into SIH if and
8 when required, and support SIH residents with complex needs to remain and live well in SIH
9 facilities.
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Identification

Screening

Eligibility

Included

