Older UK sheltered housing tenants’ perceptions of well-being and their usage of hospital services

Glenda Cook PhD MA (Medical Ethics) BSc (Hons) Psychology Cert Rd RGN RNT¹, Cathy Bailey PhD BA (Hons) Health Studies RGN¹, Philip Hodgson PhD BA (Hons)¹, Joanne Gray BA (Hons) MSc PGCTHE¹, Emma Barron BSc (Hons) Agricultural and Biological Sciences PhD Biology¹, Christine McMillan National Diploma in Health and Social Care Level 4 Diploma in Management², Roy Marston PhD², Eleanor Binks CSS² and Joanne Rose PhD MSc BSc (Hons)³

¹Faculty of Health and Life Sciences, Northumbria University, Newcastle upon Tyne, UK, ²Housing Environment and Leisure, North Tyneside Council, North Tyneside, UK and ³Department of Health Science, York University, York, UK

Accepted for publication 2 September 2016

Correspondence
Prof Glenda Cook
Faculty of Health and Life Sciences
Northumbria University
Coach Lane Campus
Newcastle upon Tyne NE7 7XA, UK
E-mail: glenda.cook@northumbria.ac.uk

Abstract
The aim of this study was to examine sheltered housing tenants’ views of health and well-being, the strategies they adopted to support their well-being, and their use of health and social care services through a Health Needs Assessment. Sheltered housing in the UK is a form of service-integrated housing for people, predominantly over 60. The study used a parallel, three-strand mixed method approach to encompass the tenants’ perceptions of health and well-being (n = 96 participants), analysis of the service’s health and well-being database, and analysis of emergency and elective hospital admissions (n = 978 tenant data sets for the period January to December 2012). Tenants’ perceptions of well-being were seen to reinforce much of the previous work on the subject with strategies required to sustain social, community, physical, economic, environmental, leisure, emotional and spiritual dimensions. Of the tenants’ self-reported chronic conditions, arthritis, heart conditions and breathing problems were identified as their most common health concerns. Hospital admission data indicated that 43% of the tenant population was admitted to hospital (886 admissions) with 53% emergency and 47% elective admissions. The potential cost of emergency as opposed to elective admissions was substantial. The mean length of stay for emergency admissions was 8.2 days (median 3.0 days). While elective hospital admission had a mean length of stay of 1.0 day (median 0.0 days). These results suggest the need for multi-professional health, social care and housing services interventions to facilitate sheltered housing tenants’ aspirations and support their strategies to live well and independently in their own homes. Equally there is a need to increase tenants’ awareness of health conditions and their management, the importance of services which offer facilitation, resources and support, and the key role played by prevention and reablement.

Keywords: health needs assessment, older peoples’ health, older tenants, sheltered housing, well-being

Introduction
Across societies there is increasing awareness of the importance of providing housing options that meet the needs and aspirations of older people. One challenge is the level of diversity that exists within this population group. This is manifested in characteristics of lifestyle, culture, health status, disability and...
socioeconomic conditions. Another challenge is differential and changing needs within and between cohorts of generations. For example, later life ‘baby boomers’ have different expectations of longevity and wealth, among other factors, compared to those born in the 1920s (Timonen 2008, Thompson 2013). Housing provision for such a heterogeneous group is embedded in historical, social and market contexts across the globe.

One significant trend has been the emergence of specialist housing for older people. Its scope is reflected in Howe et al.’s (2013) categorisation of the 90 terms they identified through a search of electronic databases to describe housing for older people. Adopting the umbrella term ‘Service-integrated housing’ (SIH), they offer a useful typology to distinguish housing options: (i) lifestyle and recreation; (ii) support services for independent living in private dwellings or shared housing; and (iii) support and care services. As resident populations change in these various forms of housing, there is a need for service providers, planners and policy makers to have understanding of current residents’ needs, rather than being reliant on data generated from previous cohorts.

This paper reports on the findings of a health needs assessment (HNA) of the tenant population of a UK sheltered housing service. The classification of this form of housing is SIH level 2: support services for independent living in private dwellings. The purpose of completing a HNA was to allow the findings to inform the redesign of the sheltered housing service from one that was reactive to the conditions of later life, to a service delivery model that is preventative and enabling. This service development required understanding of tenants’ perceptions and aspirations for well-being as well as their need for support and care. A scoping report of the literature highlighted the paucity of research concerning the well-being and health status of sheltered housing tenants (Croucher et al. 2008, Ford & Rhodes 2008, Pannell & Blood 2012), affirming the importance of this activity to inform the development of the sheltered housing service delivery model (reported in Housing LIN, Marston et al. 2014). The paper presented here reports on the outcomes of the HNA. It commences with a discussion of sheltered housing in the UK followed by the HNA methodology and findings.

**Sheltered housing and UK tenants**

UK sheltered housing originally, in the mid-twentieth century, provided dwellings for relatively fit, healthy older adults requiring limited support. It now accommodates people who are either: active and older who need little support; are frail; or those who are vulnerable and have had problems such as homelessness, or drug or alcohol dependency. Sheltered housing now accounts for around 5% of the UK’s older population housing (NHF 2011); with just over 550,000 dwellings in nearly 18,000 schemes (Elderly Accommodation Counsel 2012).

In the UK, sheltered housing has independent units with some shared facilities. Design features include wide corridors, easy-access bathrooms and kitchens. Service features include alarms for tenants to summon help in an emergency and access to scheme managers/wardens who make daily checks on tenants, help with organising social activities and have responsibility for maintenance of the building (Aldridge et al. 2012).

The Community Care Act 1990 promoted support of individuals in their own home as an alternative to moving to institutional care. Inherent in this Act and a plethora of subsequent UK health and social care policy and reports were a promotion of preventative strategies and integration of services that focus on independence and self-care (Audit Commission 2004, Percival & Hanson 2006, HCA 2009, LGG 2010, All Party Parliamentary Group on Housing and Care for Older People 2012, Ham et al. 2012, Leng 2012, NHF 2014). This policy framework also stimulated the development of sheltered housing with additional care and a perception that sheltered housing could be a home for life (Foord et al. 2002, Valletly & Kaur 2008, Taylor & Neill 2009).

While older people move to sheltered housing for a variety of reasons – insecurity, loneliness, worry about living alone, cost of repairs, home unsuitable to needs – the most common reasons are poor health and/or disability. Pannell and Blood’s (2012) evidence review of the CORE (COtinuous Recording/England-only data) and Supporting People data suggests that those who require support because of illness are reasonably consistent across the age groups but those who move for greater support are, in general, the older old.

Little is known about the health and support needs of tenants (Field et al. 2002, 2005). Pannell and Blood’s (2012) report indicates that around 60% of those moving to sheltered housing have a ‘disability-related requirement’ (higher % among older movers); and 15–18% move for reasons connected to homelessness (higher % among younger movers). Tenants report a wide range of impairments/ill-health: mobility (43%), physical health (40%), sensory impairment (12% visual, 15% hearing), chronic disability/illness (13%) and mental health (9%). These findings were
reflected in earlier work by Croucher et al.’s (2008) Scottish Review survey of over 600 tenants, and Ford and Rhodes’ (2008) survey of Hanover tenants and leaseholders in sheltered/retirement housing and housing with care indicated high levels of functional impairment and sensory, memory and mobility problems were identified. Issues such as climbing stairs, undertaking housework, shopping, preparing and cooking food were found to be problematic. The findings in relation to shopping and reduced functional ability are noteworthy in the context of Harris et al.’s (2007) study of 100 Welsh sheltered housing tenants where it was identified that 10% of tenants are at risk of malnutrition. These findings reflect what is reported in the international literature about the functional, health and disability status of tenants (Van der Scheer et al. 2003, van Bilsen et al. 2008) and the purpose of this form of SIH.

Little attention has been given to assessing the prevalence of mental health problems in SIH. Pannell and Blood (2012) contribute to the little that is reported and for the period 2010/2011, showed that 9% of tenants reported mental health problems in comparison to 17% of those living in housing with care. This same report noted that there is an increase in managing substance misuse – in the period 2007/2008 – 2010/2011 with a rise from 1.6% to 2%.

It is clear that the literature concerning well-being and health of the UK sheltered housing population is underdeveloped. The aim of the study was to undertake a HNA of the tenant population of a North East Council sheltered housing service. The objectives of the study were to examine older sheltered housing tenants’ views of health and well-being; explore the strategies that tenants adopt to support their well-being; and analyse tenants’ use of formal health services.

**Methods**

A Health and Well-being Needs Assessment was undertaken during January 2012 to July 2013 within a North East England’s council’s sheltered housing service. The service has 26 communal dwellings (10 with adjacent bungalows), and 6 group dwellings in a radius of 4.07 miles. Due to relocation, death and other factors, the tenant population varies, but regularly features approximately 1000 people.

The study used a parallel three-strand design with multiple methods. The mixed methods approach enabled breadth and depth of exploration of the well-being and health needs of the tenant population. While there are different approaches to the use of mixed methods, this study adopted a convergent parallel design (Cresswell & Plano Clark 2011), whereby both quantitative and qualitative elements were used during the process, with both methods having equal priority. The design included exploration of the tenants’ perspectives (strand one) and analysis of service data (strands two and three). The service data comprised of routinely collected information within the sheltered housing service, and National Health Service data that related to tenants’ use of those services. Research ethics approval was secured from Northumbria University for all aspects of the study. In addition, Caldicott Guardian approval was attained for analysis of anonymised NHS hospital data, and the Council’s approval was secured for analysis of anonymised service data.

Within strand one, World Café Events were used to explore tenants’ views of their well-being and health. This method provides an open forum for critical thinking and exploration by participants who engage in a conversation about predetermined topics (Prewitt 2011). A sheltered housing service user group reviewed questions relating to perceptions of health and well-being prepared for the World Café events by the research team. The following were agreed: How would you describe well-being and health? What do you do to experience well-being, live healthily and independently? Has this proved of value? What services enhance the health and well-being of tenants? and What services are missing, do not work or cause problems to the health and well-being of tenants?

In a World Café Event, a hospitable space is provided to optimise comfort, safety and freedom to speak (Reed et al. 2008). Each Café event took place in a sheltered scheme, and small groups of tenants deliberated over each question, with discussion facilitated by a member of the research team. All participants were encouraged to contribute, listen to others and enter into dialogue with others with the purpose of generating new insights. The small group conversations were followed by whole group discussion to determine priorities of the issues that were recorded on table cloths and flip charts (participants wrote their views on the table cloths and the facilitators wrote verbatim quotes).

Due to the scale of the service, it was not possible to include every dwelling in the HNA. A sampling matrix was used to select participating schemes (Reed et al. 1996). This ensured that the sample was diverse and included large/small schemes, different localities, schemes with and without adjacent bungalows, schemes with tenants who were known to have sensory, mobility and health problems and those...
with a high incidence of falls. Following selection of the scheme tenants were invited to the World Café event.

Data from the group discussions were recorded on charts and table clothes. All data were collated into word files. Open coding generated topics and issues that had been discussed by the participants. These were compared and collapsed into larger categories. This was followed by analysis of the responses across the whole data set leading to the development of themes.

Strand two included analysis of anonymised data from the sheltered housing service’s health and well-being database. This database was set up in March 2012 to capture information every month about occupancy; tenants’ self-reported chronic conditions (such as diabetes, heart conditions, stroke, cancer, breathing conditions, arthritis and osteoporosis); disabilities; mobility issues; sensory impairments; mental health problems (such as dementia, schizophrenia and depression); health-risk behaviours (such as alcohol issues, obesity); and personal situations (such as anti-social behaviour and isolation). The data examined for this study were extracted from the August 2012 data set. This month was selected as the majority of strand one data were collected during August 2012 and the strand three data covered the year 2012.

Strand three analysed data that were secured from National Health Service hospital admission data that related to the sheltered housing service tenants for 2012. The data include: source and method of admission, age, postcode, primary diagnosis healthcare resource group description (DHRG), length of stay and discharge destination. The DHRG provided details of the activity related to an individual tenant’s admission to hospital. While this level of detail is helpful to understand an individual’s treatment, it was less useful in addressing the aims and objectives of this study. The DHRG data were therefore grouped and recoded in preparation for analysis. The groupings were based on READ code diagnosis chapters (standard clinical terminology system used in General Practice in the UK) with the exception of pregnancy/childbirth/congenital problems/puerperium/perinatal conditions as these were not present in the study population and the addition of alcohol-related admission, as this was reported in the services’ tenant health and well-being database. In each of these groupings, sub-codes were developed to reflect the primary diagnosis of tenant’s admissions to hospital.

Strands two and three data were transferred to statistical software (IBM SPSS Statistics) for analysis. Descriptive analysis was undertaken.

### Results

The World Café events were held during August to October 2012. Ninety-six tenants (61 females and 35 males) from 10 schemes gave their informed consent to participate in a Café event that was held in their sheltered housing scheme (a response rate of 38% from the selected schemes). By supporting tenants’ right to make autonomous decisions about participation in the study, the researchers were aware that this was representation of views and experiences of less than half of the resident population.

For strand two and strand three, data were analysed that related to the tenant population of the sheltered housing service in 2012 (strand two – August 2012; strand three – January to December 2012). There were a total of 978 tenants who lived in the service throughout the period January to December 2012, including 583 females and 395 males (19 aged less than 59 years, 205 aged 60–69, 333 aged 70–79, 325 aged 80–89 and 96 aged over 90 years).

### Tenant’s self-reported health status and their perspectives on health and well-being

#### Definitions of well-being

The tenants did not reach a consensus on their understanding of the terms health and well-being, and often used these terms synonymously. They stressed the importance of ‘embracing ageing,’ and ‘adopting a positive stance’ towards the conditions that they experience. They indicated that it was possible to experience a sense of well-being in a life that was dominated by disability and chronic health problems. ‘Well-being and health’ were described as multifactorial concepts that encompassed a number of components. These included both physical and mental health and physical, social, emotional, environmental, economic, community, leisure and spiritual well-being (see Table 1 for participants’ definitions).

#### Strategies and resources for supporting well-being

Table 1 summarises the participants’ views of components of well-being and provides details of the strategies and resources that supported them to achieve a sense of well-being. They indicated that they felt they had a personal responsibility to maintain their well-being, and the communal environment supported their efforts. The participants identified that one of the main drivers for moving to sheltered housing was to optimise their sense of safety and security. Being able to maintain and adapt their property to meet their needs enhanced their sense of safety, whereas not knowing who was entering their
communal dwelling undermined their perception of security. To address the latter, they developed a chain of communication to let each other know who was in their building.

The communal environment created opportunities for increased social interaction, development of relationships, and giving and receiving of support:

Knowing you have your neighbours is everything. With your family, they are special and mean a lot, but they want to do everything for you, but sometimes it’s good for us to be able to do things and help other people. You want to feel needed and useful and like you can offer something too. (Tenant)

Living with others was important at a time in life when, for many, their social network had contracted. Some were disappointed when they experienced difficulty in ‘getting people together’: It used to be great in here when I first came, there were all sorts of things going on and everyone joined in and helped each other. Now there is nothing. It always got left to the same people to organise things and get things going but those people are too old now and there has been no younger ones coming in. (Tenant)

Table 1 Tenants’ views on determinants of well-being (including examples of supportive strategies)

| Determinant                   | Definition                                                                 |
|-------------------------------|-----------------------------------------------------------------------------|
| Social well-being             | Having company, Having connections to people, Helping people in general, Having contact with family, Having good neighbours and friends |
| Community well-being          | Keeping engaged via a sense of community                                     |
| Physical well-being           | Maintaining health, Managing chronic disease, Sleeping well, Good rest       |
| Economic well-being           | Having financial resources to enable them to do what they wanted to do and meet their needs |
| Environmental well-being      | An adaptable or adapted home, Support from assistive technologies, Maintenance of built environment |
| Leisure and well-being        | Doing things that keep you as active as possible for as long as possible, Keeping physically active |
| Emotional well-being          | Personal outlook on ageing and living with advanced age, Being resilient     |
| Spiritual well-being          | Spiritual concerns, Values and beliefs                                       |

Changes in the tenant community, such as population ageing, were viewed as barriers to sustaining personal well-being. Other barriers included lack of knowledge of services and how to access them. This suggests that there is a need for information and signposting. Tenants also indicated there were gaps in existing service provision. These included a need for: more exercise sessions, social events and creative activities (resulting from increased health and safety requirements and the declining participatory roles of sheltered housing officers); improved nutrition services for tenants who found food preparation challenging or were on limited budgets; and regular, accessible transport which was often required by most tenants to access local services and amenities.

© 2016 The Authors. *Health and Social Care in the Community* Published by John Wiley & Sons Ltd.
Tenants’ self-reported health status
Analysis of the data recorded in the sheltered housing database indicates that a large proportion of tenants report that they are living with one or more chronic conditions. There were 917 reports of chronic conditions reported by 978 tenants in August 2012. Arthritis (reported by 258 participants), heart conditions (n = 204) and breathing difficulties (n = 135) were the most frequently reported physical diseases. Experiences of mental health problems and living with learning disabilities were reported by a much smaller number of tenants (n = 151). While this incidence is lower than that reported by Pannell and Blood (2012), caution should be exercised in the interpretation of the data presented here. There may be underreporting of illnesses such as depression, and people suffering from early stage dementia may not have received a diagnosis and therefore may be unaware of their disease. These data suggest that 45 (0.04%) of this tenant population have a diagnosis of dementia; there are self-reported memory problems by 36 (0.03%) of tenants and 41 (0.03%) reported that they live with depression.

Hospital admission events
Of the 978 tenants who lived in the sheltered housing service throughout 2012, 57% (n = 560) did not require a hospital admission. Of the remaining 43% (n = 418) tenants, there were 886 episodes of hospitalisation, with 47% (n = 412) elective admissions and 53% (n = 474) emergency admissions. Figure 1 presents counts of the elective and emergency admissions against the classifications of the recoded DHRG data. There is clearly a different pattern for admission across the categories; therefore, elective and emergency admissions will be discussed separately in the following sections.

Figures 2 and 3 show the emergency and elective hospital admissions against the total length of stay and median length of stay in hospital. Emergency admissions have a higher length of stay in comparison to elective admissions. Elective hospital admissions
admissions had a mean length of stay of 1.0 day (median 0.0 days), while emergency admissions had a mean length of stay of 8.2 days (median 3.0 days). Of the emergency admissions, respiratory system disorders account for the greatest number of bed days (850 from 83 admissions) followed by genitourinary-related admissions (512 days from 31 admissions). For those experiencing prolonged stays in hospital (such as for pneumonia male 91 years: 55 days and male 88 years: 69 days), there was the additional burden of deconditioning and reduced mental wellbeing.

Following admission, the majority of tenants returned to their usual place of residence (95%; n = 842). Of those who moved elsewhere, 29% (n = 12) were discharged to another hospital, 19% (n = 8) were moved to a non-NHS care home, 17% (n = 7) were relocated to local authority residential accommodation, 17% (n = 7) died, 10% (n = 4) entered a temporary residence (e.g. hotel), 7% (n = 3) entered an NHS-run care home and 2% (n = 1) entered high security psychiatric accommodation. Among those who moved elsewhere following a hospital admission, the largest group was aged 80–89 years (45%; n = 19); and 90% (n = 38) occurred following an emergency admission.

**Elective admissions**

The majority of elective (planned) hospital admissions occurred in the age group 70–79 years old. Length of stay varied from 0 to 58 days, with 80% (n = 322) of these admissions being ‘0’ bed days (e.g. admitted for day surgery or investigations). The highest count for elective hospital admissions occurred as a result of neoplasms, followed by digestive system problems and then nervous system-related issues.

Neoplasms-related admissions included treatment of abnormal growths, masses, tumours and cancers. Length of stay in hospital for this category ranged from 0 to 24 days for one tenant. Of those admitted for 0 days (n = 99 of 114 admissions), 30.2% (n = 30) attended for procedures; 24.3% (n = 24) for same day chemotherapy treatment; 20.4% (n = 20) for review; 13.1% (n = 13) for skin therapies; 8% (n = 8) for investigations; and 4% (n = 4) missing data.

Those admitted for treatment of digestive problems related to a range of problems. The highest

---

**Figure 2** Length of stay for emergency and elective hospital admissions for 2012.

© 2016 The Authors. *Health and Social Care in the Community* Published by John Wiley & Sons Ltd.
counts for these admissions related to inflammation followed by treatment of hernia and diverticular disease. All individuals electively admitted to hospital as a result of these conditions, stayed in hospital 1 day or less. In contrast when individuals were admitted as an emergency for the same conditions, a much longer length of hospital stay was required.

Those with nervous sensory system disorders were more likely to be admitted to hospital electively. Of the 60 admissions in this category, 63.3% ($n = 38$) were for treatment of cataracts; 21.7% ($n = 13$) were for treatment of multiple sclerosis for one individual, who had 13 repeat admissions.

**Emergency admissions**

The highest number of emergency hospital admissions resulted from respiratory-related disorders. This category was followed by symptoms and signs ill-defined, circulatory system-related admissions, then digestive system disorders, then musculoskeletal-related admissions and then genitourinary-related disorders.

The high incidence of respiratory-related admissions was due to exacerbation of chronic obstructive pulmonary disorder (COPD) and presence of pneumonia. There were 7 men and 13 women emergency admissions due to COPD. A total of 131 days were spent in hospital by these individuals with an average of 4.5 days per COPD-related admission. Furthermore, four of these admissions were repeat admissions (one tenant admitted 4 times; one: 3 times; two: 2 times).

There were 15 men and 12 women admitted as a result of pneumonia with 443 days in hospital. Two tenants had repeated emergency hospital admissions as a result of pneumonia (one with three and one with two emergency admissions).

The category of ‘ill-defined signs and symptoms’ was a significant category of emergency hospital admissions.

**Figure 3** Median length of stay for emergency and elective hospital admissions for 2012.
admissions (Figure 4). This group contains a variety of non-specific, symptomatic conditions where the majority of admissions were related to pain; in order of frequency, these related to chest, abdominal and musculoskeletal pain.

With respect to circulatory-related emergency hospital admissions, angina and congestive cardiac ventricular failure were the highest causes for emergency admission. Angina accounted for a total of 28 days and congestive cardiac ventricular failure for 158 days in hospital. There was an average hospital stay of 9.9 days as a result of congestive cardiac ventricular failure, with a range of less than 1 day and up to 23 days for one individual.

Discussion

Drawing on perceptions of the older participants, the findings highlight the multidimensional experience of well-being and the strategies they adopted to enhance their daily lives. These findings echo Woolrych et al. (2007) who stress the dynamic nature of well-being and Moyle et al.’s (2010) findings that portray older people as active agents in shaping their lives. These older tenants highlighted their efforts to consistently strive to maintain their health status and well-being through individual and collective action. They drew on the social capital that existed in their communities to improve their daily experiences. These older people were supported by their neighbours, and they supported them within their sheltered housing scheme. This contact, and knowing others could do the same for them, was very important. Coleman (1990) and Putnam (2007) observed that social relations within communities, hold people together, enable them to act more effectively and pursue shared objectives. Janssenn et al. (2011) also found that older people are capable of mobilising different sources of strength to adapt, in a constructive way, to life circumstances and stressful life events. The participants wanted to remain well and enjoy life. They acknowledged that their efforts were supported through input from sheltered housing, social care and health services. There was also considerable discussion on their personal actions and the efforts of other tenants living in their community, to enrich their daily lives.

These tenants wished to maintain their independence and to continue living in their home, within

Figure 4 Emergency hospital admissions for symptoms, signs ill-defined in 2012.
the sheltered scheme. While at times high levels of illness require specialist attention, these tenants reported that they lived relatively healthy, independent lives. This is reflected in the finding that slightly more than half the tenants of this particular service had no hospital admissions during the study year. The participants acknowledged that fluctuating ill-health and exacerbations of chronic conditions will at times require intervention, effective treatment, rehabilitation and ongoing support. They emphasised the importance of community-based resources and services to support achieving and sustaining good health and well-being, such as affordable and accessible transport, meaningful social activities and access to physical activities. They equally identified that there were barriers that undermined their efforts.

The UK all-party policy initiatives on ‘being ready for ageing’ (House of Lords 2013, p.7), such as the Early Action Task Force (Horwitz 2014), highlight how there is still a tendency to view older people, particularly those living with impairment and disability, as presenting with problems that others need to address. The findings suggest that these older individuals were already doing much to ameliorate their problems. If their efforts had been recognised and supported, it is possible that they could have done much more, rather than face barriers that were not addressed or were created by the systems in which they lived. A benefit of the HNA was the insight gained into these barriers and identification of gaps in service provision. This knowledge informed a programme of service development that contributed to the transformation of the sheltered housing service delivery model from one that was reactive to the conditions of later life to prevention and enablement (reported elsewhere – see Marston et al. 2014). It is widely understood that older people prefer to be treated for illness at home (Oliver et al. 2014). The findings indicated that elective hospital admissions had a mean length of stay of 1.0 day (median 0.0 days), while emergency admissions had a mean length of stay of 8.2 days (median 3.0 days), and following discharge a notable proportion of these individuals left their place of residence. The disruptive effects of relocation add to the detrimental effect of prolonged hospitalisation which includes deconditioning, pressure ulcers, adverse drug reactions and delirium (Gillick et al. 1982). Although there may be occasions where emergency admissions with prolonged hospital stay are unavoidable, the negative consequences mean that services should be designed to facilitate and support treatment in the home whenever possible. This reflects the current debate that new service models are required for the management of complex health problems and long-term conditions (PHE 2014).

The findings suggest the need for multi-professional health, social care and housing services to facilitate the sheltered housing tenants’ aspirations to live well and independently in their own homes, while still providing support to maintain and address conditions before the need for emergency hospital admission. Sheltered housing officers/wardens could play an important role in identifying early signs of deterioration, in particular frailty, respiratory and circulatory problems and supporting tenants to approach health professionals to attain early intervention, thus pre-empting potential crisis and emergency situations. This illustrates the need to increase awareness of conditions and their management; the importance of services which offer facilitation, resources and support; and the key role played by prevention and reablement in supporting tenants to live well and independently. However, sheltered housing tenants remain a relatively unexplored population, and further research elsewhere could help to develop services further.

Acknowledgements
This project was co-funded by Innovate UK (the UK’s innovation agency) and the Economic Social Research Council.

References
Aldridge H., Kenway P. & Pannell J. (2012) Affordability of Retirement Housing in the UK. New Policy Institute, London.
All Party Parliamentary Group on Housing and Care for Older People (2012) Housing our ageing population: plan for implementation. Available at: http://www.housinglin.org.uk/library/Resources/Housing/Support_materials/Other_reports_and_guidance/HAPPI_Executive_Summary.pdf (accessed on 1/3/2014).
Cresswell J.W. & Plano Clark V.L. (2011) Designing and Conducting Mixed Methods Research. Sage Publications, Thousand Oaks, CA.
Croucher K., Sanderson D., Chaplin S., Wright D. & Lowson K. (2008) Review of sheltered housing in Scotland. Scottish Government Social Research/Communities Scotland. Available at: www.scotland.gov.uk/socialresearch (accessed on 21/10/2016).
Elderly Accommodation Counsel (2012) Statistics on Specialist Housing Provision for Older People in England. Elderly Accommodation Counsel, London.
Field E., Walker M. & Orrell M. (2002) Social networks and health of older people living in sheltered housing. Aging and Mental Health 6 (4), 372–386.
Field E., Walker M., Hancock G. & Orrell M. (2005) The needs of older people in sheltered housing: a comparison of inner city and new town areas. Journal of Housing for the Elderly 19 (2), 107–117.
Foord M., Savory J. & Sodhi D. (2002) Sheltered housing tenant satisfaction. *Working with Older People* 6 (4), 31–35.

Ford J. & Rhodes D. (2008) Report of a Survey of Recent Entrants to Hanover Housing Association. Centre for Housing Policy, University of York.

Gillick M.R., Serrell M.A. & Gillick L.S. (1982) Adverse consequences of hospitalization in the elderly. *Social Science and Medicine* 16, 1033–1038.

Ham A., Dixon B. & Brooke C. (2012) *Transforming the Delivery of Health and Social Care: The Case for Fundamental Change*. Kings Fund, London.

Harris D.G., Davies C., Ward H. & Haboubi N.Y. (2007) An observational study of screening for malnutrition in elderly people living in sheltered accommodation. *Journal of Human Nutrition and Dietetics* 21, 3–9.

HCA (2009) *Housing Our Ageing Population: Panel for Innovation*. Homes and Communities Agency, London.

Horwitz W. (2014) *Looking Forward to Later Life*. Early Action Task Force, Community Links, London.

House of Lords (2013) *Ready for Ageing? Report Select Committee on Public Service and Demographic Change*. The Stationery Office Limited, London.

Howe A.L., Jones A.E. & Tilsé C. (2013) What’s in a name? Similarities and differences in international terms and meanings for older people’s housing with services. *Ageing and Society* 33 (4), 547–578.

Janssen B.M., Regenmortel T.M. & Abma B.A. (2011) Identifying sources of strength: resilience from the perspective of older people receiving long term community care. *European Journal of Ageing* 8 (3), 145–156.

Leng G. (2012) *On the Pulse: Housing Routes to Better Health Outcomes for Older People*. National Housing Federation, London.

LGG (2010) *The role of local government in promoting wellbeing Healthy Communities Programme*. Local Government Improvement and Development Group. Available at: http://www.local.gov.uk/c/document_library/get_file?uuid=bcdd2d1bd-8feb-41e5-41ee-489e700cc3bandgroupid=10180 (accessed on 11/11/2014).

Marston R., McMillan C., Binks E. et al. (2014) *North Tyneside Living: An integrated housing, health and social care model to deliver preventative and enabling sheltered housing services*. Housing LIN Case Study, 98. Available at: http://www.housinglin.org.uk/_library/Resources/Housing/Practice_examples/Housing_LIN_case_studies/HLIN_CaseStudy98_NorthTynesideLiving.pdf (accessed on 16/6/2015).

Moyle W., Clarke C., Gracia N. et al. (2010) Older people maintaining well-being: an appreciative inquiry study in four countries. *Journal of Nursing and Healthcare of Chronic Illness* 2 (2), 113–121.

NHF (2011) *Breaking the Mould: Re-visioning Older People’s Housing*. National Housing Federation, London.

NHF (2014) *Partnerships with NHS Providers to Improve Hospital Discharge and Community Reablement. Connecting Housing and Health Briefing*. National Housing Federation, London. Available at: www.housinglin.org.uk/_library/Resources/Housing/OtherOrganisation/NHF_Connecting_Housing_and_Health_Hospital_Discharge.pdf (accessed on 16/6/2015).

Oliver D., Foot C. & Humphries R. (2014) *Making Our Health and Care Systems Fit for an Ageing Population*. Kings Fund, London.

Pannell J. & Blood I. (2012) *Supported Housing for Older People in the UK: An Evidence Review*. Joseph Rowntree Foundation, York. Available at: http://www.jrf.org.uk/publications/supported-housing-older-people-evidence-review (accessed on 11/11/2014).

Percival J. & Hanson J. (2006) Big brother or brave new world? Telecare and its implications for older people’s independence and social inclusion. *Critical Social Policy* 26 (4), 888–909.

PHE (2014) *NHS five year forward view*. Public Health England. Available at: http://www.england.nhs.uk/ourwork/futurehns/ (accessed on 16/6/2015).

Prowitt V. (2011) Working in the café: lessons in group dialogue. *The Learning Organization* 18 (3), 189–202.

Putnam R.D. (2007) *E pluribus unum: diversity and community in the twenty-first century the 2006 Johan Skytte Prize Lecture*. *Scandinavian Political Studies* 30 (2), 137–174.

Reed J., Procter S. & Murray S. (1996) A sampling strategy for qualitative research. *Nurse Researcher* 3 (4), 52–68.

Reed J., Richardson E., Marais S. & Moyle W. (2008) Older people and strategies for health and wellbeing. *International Journal of Older People Nursing* 3, 68–75.

Taylor B. & Neill A. (2009) Sheltered housing and care for older people: perspectives of tenants and scheme managers. *Quality in Ageing* 10 (4), 18–28.

Thompson S. (2013) *Reciprocity and Dependency in Old Age: Indian and UK Perspectives*. Springer Science and Business Media, New York.

Timonen V. (2008) *Aging Societies: A Comparative Introduction*. McGraw-Hill Education, Berkshire, UK.

Vallely S. & Kaur J. (2008) *Sheltered and Extracare Housing: An Overview for Health and Social Care Professionals*. National Council for Palliative Care, London.

Van der Scheer E., Boersma F. & Deeg D. (2003) Gezondheidstoestand en zorggebruik van bewoners van services-ouderenwoningen. Een vergelijking met zelfstandig wonenden. [The health status and health care use of elderly people living in sheltered residences. A comparison with elderly people living independently]. *Tijdschr Gerontology Geriatrics* 34, 162–167.

Woolrych R., Sixsmith J. & Kagan C. (2007) *The Impact of Regeneration on the Well-Being of Local Residents: The Case of East Manchester*. Research Institute for Health and Social Change, Manchester Metropolitan University.