ABSTRACT  Ageing populations provoke the question of how much bespoke housing should be provided for the elderly. Older people are generally reluctant to move but as they age health circumstances may encourage moves into specialised accommodation. This paper reports an exercise in estimating the future demand for specialised independent living housing and the extent to which that demand will be for owner occupied accommodation or renting, using data for England. The approach is based on a behavioral model related to health and housing issues. The forecasts indicate a substantial increase in demand, growing at a faster rate than the population as a whole. If supply does not rise to meet these demands, serious problems arise in the quality of life of, and cost of caring for, older people; with implications for health care and social services.

Keywords: Retirement Housing, Ageing, Housing Tenure, Forecast, Activity Constraints
Introduction

Ageing populations have substantial implications for the future of modern societies and there is a growing body of research on these issues (Börsch-Supan, 2009). However, the future of housing demand is an important but neglected area. Those elderly needing intensive care receive it in hospital, care homes or in their own homes. If they are hospitalized or in care, they no longer are part of a household and, so, fall outside the housing ambit. Many other households will remain in their existing homes and a few may move within the normal housing market. However, an important number would benefit from what is termed here ‘specialised retirement accommodation’ (or in English policy terms ‘sheltered housing’), due to health constraints and isolation. This paper considers this area of housing demand.

If there is insufficient specialised housing, the quality of life of many older people will be substantially less than it need be. Health issues can to a degree be met through the adaptation of existing homes but bespoke, specialised accommodation may be preferable, especially if provided in a supportive, communal context. There are important spillover effects as well, because demand would be higher for health and care services related to the health-impaired elderly living in their existing accommodation and more older people would end up living in institutionalized care, which is a costly and sub-optimal outcome (Ball et al, 2011). Forecasting the nature and extent of housing demand by the elderly is consequently an important question that affects a wide spectrum of issues associated with ageing. The purpose here is to identify the demand for independent-living dwellings and, so, exclude severe health problems and concentrated care needs. The demand forecasts here indicate a large expected shortfall in the supply of specialised housing, which raises concerns for social policy as well as housing policy analysis. Here the issue is addressed with respect to England, which has good data sets with which to address this issue, but the problem extends to a much wider group of countries.

As with any other type of housing, the influences on the demand for specialised retirement accommodation are complex (Litwak and Longino, 1987). However, older people are reluctant to move if they are settled in their current homes (Gilleard and Hyde, 2007). So it is usually a life changing event that triggers moves, mainly associated with health issues and a loss of mobility as well as with isolation. This suggests the relevance of a forecasting approach based on demographics, health situations and housing tenure shares, which is the approach adopted here.
The rest of the paper is organized as follows. The nature of specialised housing and the determinants of moves into it are considered in the following section. The forecasting framework and analysis are then reported. The final section provides a summary of the findings and concluding remarks.

**Determinants of moves into specialised retirement housing**

**The various types of specialised housing for the elderly**

Specialised housing for the elderly contains various degrees of support and care (Croucher, 2007; HAPPI, 2009). The most intensive care is offered on an institutional basis in the form of residential and nursing homes and specialised care centres. There are 170,000 such places in England (Figure 1). People with particularly severe disabilities or illnesses may require such facilities. In them, an elderly person is no longer part of a separate household but is, instead, a resident of a specific care home. So, people in such accommodation do not form part of housing forecasts.

[INSERT FIGURE 1]

However, the majority of specialised accommodation is associated with a greater degree of independence and aims to enable independent living. Properties have their own front doors but have various levels of support. Medical studies show that independent living is an important requirement for health and general well-being. They also emphasize the roles of social capital, personal support and financing (Tang and Lee, 2011; Cannuscio et al., 2003; Pastalan, 1990).

Support ranges from the provision of communal facilities, offering an ability to meet and socialise with other residents; the presence of the house manager for at least part of the day; and, possibly, the preparation of meals and a dining room; through to more intensive assistance with extra care on a 24 hour basis. House types vary from flats in apartment blocks to stand alone properties in retirement villages.

There are currently around 560,000 specialised independent-living dwellings for the elderly in England (Figure 2) and these represent around 9% of all the accommodation of households aged
65 and above. (However, a small proportion of those living in specialised accommodation may be younger than 65).

[INSERT FIGURE 2]

Most specialised retirement accommodation takes the form of what is termed ‘sheltered accommodation’ for single people or couples. 85% of it is found in purpose-built blocks of flats, which include communal facilities, such as a lounge, and full-time on-site supervision, building management and support, or equivalent part-time support and remote assistance at other times. A further 13% of specialised elderly housing involves higher levels of care (Figure 3).

Only 1% of English specialised retirement housing is found in retirement villages. This contrasts with the situation in many other countries where retirement villages form much greater shares, including in Australia and the USA (Piggott, 2009). Retirement villages frequently cater to the higher income end of the specialised housing market. Others amongst the better-off elderly adapt existing private housing and hire staff to meet their needs, but that individualised outcome is not classified as specialised accommodation.

Most purpose-built specialised accommodation in England is rented, or provided on a joint accommodation and care fee basis when the care element is high, according to the Elderly Accommodation Council. Virtually all of it is provided at below market rents by either housing associations or local authorities. Less than 20% of dwellings are privately provided (around 100,000 units and another 10,000 in the rest of the UK), mostly in the form of owner occupied retirement housing (OORH). It is leasehold sheltered housing in which an annual management service fee is paid. There are a few owned properties with a greater care offer.

It is interesting to note that the balance between social and private provision in retirement housing is the mirror opposite of that for the overall housing stock, where less than a fifth is socially rented. Public and private forms of retirement housing provision are distinct, although offering ostensibly a similar sort of product. Socially rented retirement accommodation is part of welfare-state based social care for those on lower incomes into older age.
Private delivery is about providing accommodation for those who were in the main previously owner occupiers but then chose to move into specialised accommodation. High levels of satisfaction are reported for owners (Ball et al., 2011). The option of retirement communities is a lifestyle choice for them but one strongly influenced by health considerations (Kim et al., 2003).

**England’s ageing population, housing wealth and housing moves**

At the age of 65, life expectancy for men in the UK is now 18 years and for women 20 years (ONS, 2011). Given the principles of averages, many of those people are going to live a lot longer than that and some will live well into their 100s. So, as the U.K.’s population grows and ages over the next 20 years or so, the number of households over 65 years old will increase at a particularly fast rate.

There are expected to be an extra 3.5 million older households by 2033 in England, according to government statisticians, a 60% increase on today. By then, at least a third of all households will consist of those aged over 65, up from 28% in 2008 (Shaw, 2007). Growth will also be fastest amongst the oldest, and potentially the frailest, aged 85 or more (Figure 3). On average there will be an extra 140,000 older households each year for the next 20 years or more.

![INSERT FIGURE 3]

Many older owner occupiers possess housing wealth and that will rise in the future (Holmans, 2008). Estimates of the amount of housing equity held by older homeowners are substantial. In National Accounts data, total personal sector housing wealth was estimated to be around £1 trillion (£1,000bn) in 2006, with the 65 plus age group owning 44% of all housing equity.

However, the exact extent to which this equity encourages older people to consume more housing is unclear. It certainly allows many older homeowners to stay in their existing accommodation than would be warranted on the basis of their current income alone. They became homeowners many decades ago and were then able to buy far more cheaply than today, because of the long-run real increase that has occurred in UK house prices (Halifax, 2010). That
benefit was subsequently locked-in through rising housing equity and the cumulative tax benefits of home ownership.

Home ownership rates for those aged between 45 and 64 have remained steady and high, while the shares amongst those aged over 60 have grown substantially over the past 20 years (CLG 2010). Further increases are expected amongst older households, particularly in the 75 and above age groups in the coming years. This estimate is based on working through the age cohorts of those that participated in the rapid expansion of homeownership from the 1950s to 1990s, and this expansionary effect will continue well beyond the twenty year forecast horizon examined here.

In England, just over one in 10 of all households move each year (CLG, 2011) but there are large differences in which types of household move, based primarily on which tenure people live in and how old they are. Private renters move far more frequently than others and, as people get older, they are progressively less likely to move. Over half of all 16 to 24 year olds move in a year; whereas only 3% of 65 to 74 year olds do and only 2% of those aged 75 plus (Figure 4).

[INSERT FIGURE 4]

Low mobility amongst the old is a common characteristic internationally. The mobility of the elderly in England is less than in Australia, the USA and Scandinavia, but higher than many European countries, such as Germany, the Netherlands, France, Spain and Italy (Angelini and Laferrère, 2008; Banks et al., 2010; Oswald et al., 2003; Piggott, 2007; Uren and Goldring, 2007). The general availability and affordability of housing plays a part in cross-country differences in the frequency of household moves at all age levels. However, institutional factors play an important part as well. For example, renting generally has lower transactions costs than owner occupation but rent controls and security of tenure rules in many European countries discourage the elderly from moving (Haffner et al., 2008). High transactions costs for owner occupiers in many European countries also limit mobility; whereas they are low in the UK (OFT, 2010).
The two factors of tenure and age clearly interact with each other. For example, the private rented sector attracts the young; whereas in the UK the majority of the elderly are home owners, who face high transaction costs when they move. Most of elderly renters are social tenants and they are constrained in moves by social housing allocation processes. Of the 5.5 million households aged 65 and above in England, 75% are homeowners; a fifth live in social housing; and only 5% live in the private rented sector, many in the remaining stock of controlled tenancies (Figure 5).

The reasons why the young move frequently seem pretty straightforward. They are at the early stages of their adult lives and job changes encourage high mobility, as do a host of other factors associated with their lifestyles. As their careers mature, personal relationships solidify and many have children, they increasingly settle down and move less frequently.

What about the elderly? Their children have invariably long gone to live their own lives, yet often the family home remains. Moreover, their lives change dramatically after retirement and beyond as personal circumstances alter. Many are outright homeowners and have substantial wealth locked up in their home, which they could convert into a more liquid form and, say, use as current income by down-sizing. Should not such factors similarly encourage a high proportion of moves amongst the elderly as well? The answer seems generally to be no. Most prefer to stay where they are for as long as they can and they do not touch their housing equity either.

Yet, this conclusion of relatively low mobility amongst the elderly should not be mistakenly understood as implying that numerically few older people actually move. As there are so many older households, even low percentages moving still mean that thousands change home each year. For example, in 2008, it is estimated that around 130,000 English retirees moved: approximately 70,000 of them aged between 65 and 74, and 60,000 were 75 or older (CLG, 2011). Social housing is disproportionately represented as a destination amongst such movers, partly because of the preponderance of specialised retirement accommodation there, as noted above but, even so, over 60,000 of the aged 65+ movers in 2008 bought a new dwelling (Figure 6).
Few of these purchases were of specialised owner occupied retirement accommodation. For example, in 2008, when moves into newly-built OORH were at a recent peak, they only represented 3% of all 65+ year old moves and only 7% of purchases by them of owner occupied housing. However, if estimates undertaken by the authors of sales of dwellings from the existing OORH stock are included as well, the shares rise to around 16% of all 65+ year old moves and 35% of owner occupied purchases respectively.

**A strong reluctance to move amongst the elderly but push factors may intervene**

For anyone, whatever their age, moving home is a costly and potentially disruptive activity. But, for older people, who probably have been living in their current dwelling for a long time, moving can be particularly problematic. Therefore, there are often good reasons for most of them staying in their existing current home, even if a move may ostensibly seem desirable on many grounds. The reasons for staying put are varied. Some are financial; others are physical or about people’s sense of well-being and social networks.

Strong attachments to a home or a locality can have been built up and family and friends will often be located near to the existing home. Maintaining such emotional bonds and social networks has been identified as important to the well-being of older people (Gilleard, 2007). Studies in Australia and elsewhere have highlighted the strong attachment to local areas, even in countries where the elderly have a much wider range of more affordable housing choices than in the UK (Piggott, 2007).

Yet many older households will also face growing health and housing difficulties as they continue to age. Although people are living longer, the incidence of age-related ailments is not being delayed at the same rate to progressively older ages. Therefore, people in the future are likely to have to live with such problems and the constraints they impose for more years than was typical in the past. This ‘ageing with effort’ affect will increasingly influence housing choices amongst the elderly as they grow in number.
Moreover, few people plan for the onset of unfortunate health events. Instead, a healthy and socially active person at whatever age tends to be myopic, ignoring the expected values readily available in health statistics. On that basis, he or she will plan on the understanding that current health circumstances and personal relationships will remain the same. The fundamental drivers seem common across countries suggesting that they represent widely held preferences (Serow, 1987; Robinson and Moen, 2000; Sabia, 2008; Spitzer et al., 2004). That helps to encourage the elderly to stay in their own home and to avoid the prospect of needing specialised accommodation. However for many, as time passes by, the decision to make a lifestyle change and move into specialised accommodation may be quite sudden, prompted by adverse events. Alternatively, the decision may be a longer drawn out one, but all the same, the need to move to specialised accommodation will be recognised as increasingly necessary once a life changing event has occurred (Gonyea et al., 1990; Chevan, 1995; Silverstein and Zablotsky, 1996).

With ageing, physical constraints on housing choice begin to take on a growing significance. To cope with an existing home, an ability to be mobile around the home is important. Moreover, being able to lift and to carry everyday domestic objects is essential. Climbing stairs may become more onerous with age and they are commonplace in the typical English house. Also the likelihood and consequences of falls may become more worrying for someone, especially when they live alone. Furthermore, with growing physical impairment, particular activities that were once enjoyable can become burdensome and increasingly difficult to enjoy, such as looking after a garden. Homes may have living space that is no longer required, but it still needs cleaning and looking after.

Growing physical impairment is an unfortunate fact of human existence. In UK surveys, around 40% of those in the age band from 60 to 74 report having a limiting life time illness and the incidence rises to almost 60% at 75+ (ONS, 2002/3). A recent survey found that for the vast majority of older people deterioration in their health would be the deciding factor if they were to move in the future. Amongst movers into specialised accommodation, virtually all were found to be experiencing health problems of some sort, usually related to diminished mobility (Croucher, 2008). When an older person’s health deteriorates substantially, it is obvious to them or their relatives that they need to move into a residential care home. But many others with less severe health issues are still able to live independently. However, they may now wish to move into
accommodation with some support and potential social interaction as it is now more suited to their current needs.

Existing homes can be adapted for some purposes. UK data show that many households where a core member is aged 75+ have adaptations related to hand rails (30% of them), bathroom modifications (26%) or alerting devices installed (14%) (ONS, 2010). However, there are limits to such adaptations and the more complex ones are expensive, so that moves to bespoke accommodation become more sensible.

Moves for older people reflect the choices open to them but increasingly the options are constrained by health. Therefore, it is possible to envisage ‘trigger’ or ‘inflection’ points in the life cycle: at retirement when physical constraints may be minimal; with the onset of moderate forms of disability when specialised independent living may become attractive; and when care homes become necessary with chronic disability (Litwak and Longino, 1987; Bradley, 2011). When deciding to move, family members and caregivers often play a ‘catalyst’ role, with survey findings identifying a family-based decision process in which the quality of health care services and proximity to family are influential factors (Gilbert et al., 1994).

Isolation
Problems of isolation are widespread amongst older singles living alone. Moving to specialised retirement accommodation removes much of the threat and adverse consequences of loneliness and old age. The number of older people living alone in the UK is high and growing, with half of those aged over 75 currently living alone (Figure 7). The most common cause of living alone is the loss of a spouse. This affects women more than men because men have a lower life expectancy. Widowhood affects large numbers of older women, with over 60% of women aged 75+ being widows (Figure 8). The number of single elderly people is also expected to grow substantially in the future, with over 6 million of those aged 65+ expected to be living alone by 2033 (Figure 9).

[INSERT FIGURE 7]
[INSERT FIGURE 8]
Mobility, health and the demand for specialised retirement housing

The negative impacts of isolation are difficult to measure as the consequences vary substantially between individuals, ranging from those that enjoy their new found independence to those that find being alone very difficult. However it is reasonable to predict that, whatever the person’s view, isolation is harder if it is associated with a loss of mobility, because then continual social interaction outside the home is impaired. To a significant extent, therefore, a negative experience of living alone is likely to be associated with simultaneous restrictions on personal mobility (Robinson and Moen, 2000). As the data below indicate, mobility constraints affected a substantial and growing number of people with age. This suggests that a focus on mobility may be the most fruitful avenue when looking at the potential demand for specialised retirement housing. However those suffering from isolation may still benefit from the greater sociability and support offered in comparison to living in an ordinary family home, even if they have no activity constraints.

Activity constraints amongst the elderly

Data on activity and ageing are available from the English Longitudinal Survey of Ageing’s (ELSA) Wave 4 2008 data set (Banks et al., 2010). Activity constraints are measured in two ways: first, by the perception of the person and, second, by an objective measure of walking speed. The survey broke down activity constraints into a threefold classification; none, mild and severe activity constraints.

Activity constraints unsurprisingly rise with age. The slowest walking speed rises to almost 40% of respondents aged 80 to 84. Nonetheless, a substantial proportion of the elderly still retain a significant ability to be at least partly active across all age ranges, with over 55% of 70 to 74 year olds having an unimpaired walking speed. However, a significant minority below 75 face activity constraints and over half do by 75.

The ELSA findings indicate that perceived activity constraints are worse than those objectively measured by walking speeds. This may in part result from the fact that people's perceptions take into account other issues, such as the ability to climb stairs comfortably or the risk of falling,
than does a simple walking measure. When looking at whether someone wants to move, perceptions, rather than objective measures, are likely to be the most important drivers of their decisions.

**Forecasting the demand for specialised retirement accommodation**

Previous sections have highlighted that the most important predictor of demand for specialised housing is the extent of the requirement for at least some degree of long-term care due to loss of mobility. Therefore, the forecast is formulated around a behaviour-based model centred on demographic, personal physical mobility and housing tenure factors.

In a forecasting exercise, it would ideally be useful to have good parameter estimates of housing demand by the elderly and also similar inputs regarding supply but, unfortunately, this information is unavailable. However the activity approach offers an alternative through assessments of the incidence of factors that encourage older people to think of living in specialised accommodation. It then becomes possible to postulate views about how many such people might wish to move into this type of housing. Prime drivers of the demand for specialised retirement accommodation relate to health and social issues associated with older people. So it is in relation to these factors that some estimates of the potential demand will now be made.

The estimates here take the government’s household forecasts and adjust them for health-related and household composition factors and also for housing tenure. The results are divided into three groups: 1. those that move into OORH; 2. those that are likely to stay in their existing homes, because they have little or no mobility constraint or can cope with the problems they face; and 3. those that would benefit from specialised retirement housing but cannot afford to buy unaided in the private market, so they either stay where they are or move into specialised social housing. As future public expenditure in England on specialised retirement housing is likely to be low for the foreseeable future, it seems particularly arbitrary to assign a potential demand to it.

1. **Household forecasts** The basis of the estimates is the official 2008-based forecast of household numbers by age group up to 2033, which are linearly adjusted to generate intermediate year estimates. The focus of the estimates is the elderly, defined conventionally as those aged 65 or more.
2. **Age profile**  It is assumed that the number of people benefiting from moving into specialised retirement housing rises with age up to 85. Beyond 85, it is assumed that more need intensive care, so that the share is somewhat less than for younger age groups at 65-84.

3. **Activity constraints**  The number benefiting from living in specialised retirement housing is determined by the shares of ELSA-derived perceived activity constraints for each age cohort. Others have used estimates of basic activities of daily living (ADL) (Katz, 1983; Wang et al., 2007). However, specific assumptions are made here to identify the group benefiting from specialised housing. The forecasts put greater weight on the mild activity constraint measure rather than on the none or the severe categories, because the active residents have a much higher probability of staying in their own home and severely constrained ones are likely to require extra care. However, isolation plays a part in people’s living choices, so some share of the active category is included as well. In consequence, 10% of no activity constraints throughout the age range from 65 to 84 were assumed to want to live in specialised accommodation, either because of isolation or because of some health factor affecting their partner. For those aged 85+, it is also assumed that most require more intensive care or stay in previous accommodation. Some of the 85+ group are likely to live in specialised accommodation, so it was assumed that a fifth do in absence of any better means of working out the ratio.

4. **Owner occupation**  In order to buy an owner occupied retirement home it is generally necessary to have a prior owned dwelling to sell for raising sufficient funds (due to restricted access to mortgage financing). So homeownership shares in each age group are an important determinant of the tenure breakdown of specialised retirement housing demand. In this context, it is assumed that the current homeownership rate will remain the same in the future for those aged below 75 but will rise over time amongst those aged over 75, because of the feeding through of higher current homeownership rates amongst younger households. In order to account for this effect, the homeownership rates for those aged 65 to 84 are gradually increased over the time period of the forecast.

5. **Affordability**  Affordability issues suggest that owner occupiers with existing properties in the lower end of the house price distribution will not be able to afford OORH at its current price point in the market. This figure is based upon survey research found in Ball et al. (2011). In consequence, 35 per cent of homeowners are excluded in the housing
demand estimates on the assumption that their existing house prices, and hence home equity, are too low to move into OORH and, instead, they stay in their existing accommodation or move to social housing. Similarly, owners with particularly expensive dwellings and relatively high incomes may choose other more expensive housing and care options if they move, or be able to afford a package of substantial adaptation of their current home and extensive personal care. The size of this group is more difficult to estimate. So a downward adjustment of 15 per cent of homeowners is also made for them.

6. **Household types** The attractiveness and needs of living in OORH are likely to differ between one and two-person households. On the one hand, there is a greater chance that couples will remain in their existing accommodation, because isolation factors are lower and, if one person suffers an activity constraint, the other is there to assist them. This suggests that couples are likely to be relatively less represented in specialised retirement housing than are single person households. On the other hand, there may be an encouragement factor as well, when spouses find specialised retirement housing attractive because their partners are constrained in what they can do. However, on balance, an assumption of greater attractiveness of specialised retirement housing for singles seems most plausible. Therefore, it is assumed that there is less representation from 2+ person households in terms of activity constraints.

All forecasting assumptions are summarised in Table 1. As can be easily understood, these assumptions may be varied to create alternative scenarios. Here, one such scenario is presented in the tables discussed below.

The estimates start from the overall official long-term household projections. From Table 2 to Table 4, restrictions are gradually imposed to narrow down to the most pertinent group for specialised housing.

![Insert Table 1]

The initial base case comprises all English households aged over 55. 1 and 2+ person households are separately identified, because of the expected differences in the propensity to move into retirement accommodation. The official forecasts for older households are made
only for the end point year 2033 but averaging the increase evenly over the forecast period implies that 4.8 million 1-person and 5.8 million 2 or more person households within that age group will exist in 2016, etc. From those estimates, and the assumptions made here regarding the shares in renting and owner occupation, the number of owner occupiers and renters can be forecast (Table 2). Combining these tenure estimates and assumptions of who would benefit on health (activity) grounds gives the total related specialised accommodation by tenure (Table 3). Over two-thirds of the demand is from single people. The peak demand is for those aged 75 to 84 but with a large and growing share amongst those aged 75+. In this formulation the majority of the demand for specialised housing is for owner occupation, because the tenure allocations are based on pre-existing tenure patterns amongst the elderly. In fact, the demand from renters is lower than the current supply of specialised rental accommodation whereas the demand from previous owner occupiers is over six times that of the existing OORH stock in 2016 alone. This disparity indicates the extent to which currently older, partly infirm owner occupiers move into social housing or stay where they are, a point taken up below in relation to policy trends.

The final adjustment, shown in Table 4, is to account for the group of owner occupiers whose previous housing equity is too low to afford OORH and those that are affluent enough to choose more personalised options. By assumption, this lowers the demand for OORH by a half. However, the remaining potential demand is still much higher than the existing stock of specialised private accommodation, rising to 4.6 times current levels by 2033.

Conclusions and policy implications
This paper has examined future long-term demand for specialised housing for the elderly. The discussion highlighted the importance of activity constraints, isolation, housing tenure
and personal wealth on the choices made by older people. The forecasts, using data from England, identified the substantial increase in the need for this accommodation in the future as the population ages. Moreover, some of the greatest growth is going to be amongst those aged 75 to 84 and amongst the very old 85+ group.

It could be argued that the assumptions made in this forecasting exercise contain a number of essentially arbitrary statements. But that is to miss the point of this exercise, which is to suggest that a large potential demand exists on plausible estimates of who might benefit from living in specialised retirement housing. Different assumptions can obviously be used but such variations are still likely to show a substantial potential demand, which is much greater than the current availability of specialised retirement housing.

In policy terms, the question is how this demand is going to be met and the implications if it is not met. The analysis here shows that currently most specialised housing is in the social sector in England, with many previous homeowners moving into the sector. However, it cannot be assumed that this allocation can be extrapolated into the future. Will society be prepared to subsidise the very high cost of hundreds of thousands of new specialised social dwellings in the future? The answer is almost certainly no.

Many more of the elderly in the future will have previously been homeowners with some housing equity. Even if desirable, it would not be possible to tax away the housing equity of previous homeowners to make up the shortfall in the cost of providing social housing for them and previous renters, because their equity will be woefully insufficient. At present, around 40% of elderly home owners’ housing equity is less than the market price of OORH, the price of which is a rough guide to the unsubsidised cost of social provision (Ball et al, 2011).

The implication is that in the future far more provision of housing for the elderly will have to take place in the private sector. However, the market provision of specialised retirement housing is likely to be very inadequate for predicted needs. A significant cause of this is a chronic planning-induced land shortage which keeps the price of retirement accommodation high (Barker, 2004). However, even if land were more plentiful, a significant group of the
elderly would remain, who were unable to move or live in appropriate accommodation due to affordability constraints.

The continuing shortage of specialised housing will mean that hundreds of thousands of the elderly will continue to live in their existing accommodation when bespoke property would better suit their needs. This will further exacerbate general housing shortages, especially as the empty nester elderly do often own substantial family homes. It will also put pressures on care home sector because, in the absence of an appropriate intermediate stage, more will be pushed into care. Health and social care will also be put under greater pressure by, for example, the need for longer stays in hospital or more demand from isolated and vulnerable people.
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Figure 1: Institutional care units for the elderly in England 2009

Source: HAPPI 2009 based on Elderly Accommodation Council data.

Figure 2: Special independent-living dwelling units for the elderly in England 2009

Source: HAPPI 2009 based on Elderly Accommodation Council data.

Figure 3: Household projections for older age groups, England

Source: CLG
Figure 4: Percentage of households moving in the previous year by age
   England, 2008, all movers

Source: CLG

Figure 5: Number and tenure distribution of those aged 65 & over
   England 2007-8

Source: CLG

Figure 6: Number of retired households moving in past year by tenure of new home
   England, 2008

Source: CLG
Figure 7: Proportion of people living alone

Source: General Lifestyle Survey

Figure 8: Marital status of the elderly

Note: married includes 1-2% co-habitation
Source: ONS

Figure 9: Single, widowed & divorced elderly, 2008 & 2033 forecast

Source: ONS
Table 1: Forecasting model assumptions for specialised independent living retirement accommodation

<table>
<thead>
<tr>
<th>Household shares by age cohorts</th>
<th>65-74</th>
<th>75-84</th>
<th>85+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner-occupation share %</td>
<td>76.6</td>
<td>68.9</td>
<td>68.9</td>
</tr>
<tr>
<td><strong>Activity constraints</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shares of ELSA activity groups %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No activity limitation</td>
<td>10</td>
<td>10</td>
<td>*</td>
</tr>
<tr>
<td>Mild activity limitation</td>
<td>25</td>
<td>50</td>
<td>*</td>
</tr>
<tr>
<td>Severe activity limitation</td>
<td>none</td>
<td>none</td>
<td>*</td>
</tr>
</tbody>
</table>

| 1 person households            |       |       |     |
| No activity limitation         | 2     | 5     | *   |
| Mild activity limitation       | 20    | 30    | *   |
| Severe activity limitation     | none  | none  | *   |

| 2+ persons households          |       |       |     |
| Affordability constraints      |       |       |     |
| exclusions of top and bottom ends of the house price distribution % | | | |
| Excluded owners top-end        | 15    | 15    | 15  |
| Excluded owners lower-end      | 35    | 35    | 35  |
Table 2: Forecasts of household numbers 65 and above by age cohort and housing tenure

<table>
<thead>
<tr>
<th>Age cohorts</th>
<th>1 person</th>
<th></th>
<th></th>
<th>2+ persons</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>65-74</td>
<td>75-84</td>
<td>85+</td>
<td>65-74</td>
<td>75-84</td>
<td>85+</td>
</tr>
<tr>
<td>Age cohort totals (000)</td>
<td>OWNERS</td>
<td></td>
<td></td>
<td>RENTERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>909.5</td>
<td>1,182.10</td>
<td>632.6</td>
<td>1,567.70</td>
<td>596.1</td>
<td>242.9</td>
</tr>
<tr>
<td>2021</td>
<td>982.6</td>
<td>1,344.40</td>
<td>804.7</td>
<td>1,693.80</td>
<td>678.0</td>
<td>309.0</td>
</tr>
<tr>
<td>2033</td>
<td>1138.4</td>
<td>1,501.5</td>
<td>1096.8</td>
<td>2,015.8</td>
<td>876.1</td>
<td>474.7</td>
</tr>
<tr>
<td>Household size totals (000)</td>
<td>OWNERS</td>
<td></td>
<td></td>
<td>RENTERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>2,724.20</td>
<td></td>
<td></td>
<td>2,406.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>3,131.70</td>
<td></td>
<td></td>
<td>2,680.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2033</td>
<td>3,736.70</td>
<td></td>
<td></td>
<td>3,366.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAND TOTAL (000)</td>
<td>OWNERS</td>
<td></td>
<td></td>
<td>RENTERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>5,130.90</td>
<td></td>
<td></td>
<td>7,103.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>5,812.50</td>
<td></td>
<td></td>
<td>7,103.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2033</td>
<td>7,103.30</td>
<td></td>
<td></td>
<td>7,103.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: No distinction is made between private and social renting, but most will be in the social sector. For age cohorts 75+, the share is adjusted upward over time to reflect the increasing level of homeownership.
Table 3: Forecasts of household numbers aged 65 and above who benefit from specialised housing

<table>
<thead>
<tr>
<th>Age cohorts</th>
<th>1 person</th>
<th></th>
<th></th>
<th></th>
<th>2+ persons</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>65-74</td>
<td>75-84</td>
<td>85+</td>
<td></td>
<td>65-74</td>
<td>75-84</td>
<td>85+</td>
<td></td>
</tr>
<tr>
<td>Age cohort totals (000)</td>
<td>OWNERS</td>
<td></td>
<td></td>
<td></td>
<td>RENTERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>94.3</td>
<td>205.6</td>
<td>126.5</td>
<td></td>
<td>83.1</td>
<td>60.6</td>
<td>48.6</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>101.9</td>
<td>249.3</td>
<td>160.9</td>
<td></td>
<td>89.7</td>
<td>73.6</td>
<td>61.8</td>
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</tr>
<tr>
<td>2033</td>
<td>118</td>
<td>278.5</td>
<td>219.4</td>
<td></td>
<td>106.8</td>
<td>95.1</td>
<td>94.9</td>
<td></td>
</tr>
<tr>
<td>Household size totals (000)</td>
<td>OWNERS</td>
<td></td>
<td></td>
<td></td>
<td>RENTERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>426.4</td>
<td></td>
<td></td>
<td></td>
<td>192.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td>512.1</td>
<td></td>
<td></td>
<td></td>
<td>225.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2033</td>
<td></td>
<td>615.9</td>
<td></td>
<td></td>
<td></td>
<td>296.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAND TOTAL (000)</td>
<td>OWNERS</td>
<td>RENTERS</td>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>618.7</td>
<td>210.2</td>
<td>828.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>737.2</td>
<td>213.6</td>
<td>950.8</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>2033</td>
<td>912.7</td>
<td>264.2</td>
<td>1176.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. For age cohorts 75+, the share is adjusted upward over time to reflect the increasing level of homeownership.

2. For mild activity limited group, the rate is adjusted upward for 75-84 to account for increasing activity limitation as residents grow old. Similarly, for none activity limitation, the rate is adjusted for 75-84, to account for increasing dependence as residents grow old.

3. For 85+ age cohort, 20% of the homeowners and renters are assumed to demand for specialised homes.
Table 4: Forecasts of household numbers aged 65 and above demand for owner occupied specialised housing adjusted for affordability constraints

<table>
<thead>
<tr>
<th>Age cohorts</th>
<th>1 person</th>
<th>2+ persons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>65-74</td>
<td>75-84</td>
</tr>
<tr>
<td>Age cohort totals (000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>47.1</td>
<td>102.8</td>
</tr>
<tr>
<td>2021</td>
<td>50.9</td>
<td>124.7</td>
</tr>
<tr>
<td>2033</td>
<td>59.0</td>
<td>139.2</td>
</tr>
<tr>
<td>Household size totals (000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>213.2</td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td>256.1</td>
</tr>
<tr>
<td>2033</td>
<td></td>
<td>307.9</td>
</tr>
<tr>
<td>GRAND TOTAL (000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2033</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. For age cohorts 75+, the share is adjusted upward over time to reflect the increasing level of homeownership.

2. For mild activity limited group, the rate is adjusted upward for 75-84 to account for increasing activity limitation as residents grow old. Similarly, for none activity limitation, the rate is adjusted for 75-84, to account for increasing dependence as residents grow old.

3. For 85+ age cohort, 20% of the owners are assumed to demand for specialised homes.