Abstract: The ageing of the population will change many societies in unprecedented ways. The changing age composition does not only create a burden on existing income systems and health care systems, but also affects the geographical mobility of populations. The objective of this paper is to provide some first insights into the moving behaviour of older adults in the Netherlands. By using data of the Housing Research Netherlands (HRN) 2009 survey, it was possible to investigate whether or not later-life residential mobility is influenced by individual characteristics and housing attributes. The responses of migrants and non-migrants are compared by conducting several two-way-chi-square analyses. The results of these descriptive analyses demonstrate that migrants indeed differ from non-migrants and that these differences are mostly related to housing attributes.

Key words: mobility, residential behaviour, older adults.

1. INTRODUCTION

In the Netherlands, in the year 2011, 16% of the population was aged 65 and older. By the year 2040 this figure will rise to approximately 26% (CBS, 2011). Several factors contribute to the ageing of the Dutch population. An important factor is the increase in life expectancy. In general, improvements in health care and increasing prosperity have resulted in a steady expansion of the number of older adult people over the last 50 years. This trend is expected to be reinforced in the upcoming decennia with the coming of age of the baby boom cohort (those born between 1945 and 1970). This rise in the number of older adults will persist until approximately
the year 2030, after which the number of older adults will drop due to the decreasing birth rates from the 1970s and onwards (van Iersel et al., 2010).

The effect of these factors has been that the old-age dependency ratio, defined as the number of persons aged 65 and older as a percentage of the 20 to 64 year olds, gradually increased from 18.8% in 1970 to its current level of 25.2%. The old-age dependency ratio is expected to peak at 48.7% in 2040 (CBS, 2010). As the number and proportion of older people in our society changes, these processes will have numerous implications (Kim, 2011). The increase of older adults, together with a decrease in the number of younger people, will place an enormous burden on existing income systems, health care systems, social services and retirement programs. Older adults are likely to demand a wide array of new services to meet their unique and diverse needs (Choi and Dinse, 1998). The changing age composition will also affect the geographical mobility of populations (Plane and Rogerson, 1991), reshaping the physical environment as we know it (Kim, 2011).

This research aims to provide more insight into the residential moving behaviour of older adults in the Netherlands. This paper will first present theoretical frameworks which have been applied to the residential mobility of older adults. Next, the discrepancy in defining the older adults in the literature will be discussed. The paper will continue with several descriptive analyses demonstrating the difference between older adults that moved and older adults that did not move between the years 2007 and 2009. Lastly, some suggestions for future research are given.

2. THEORIES OF RESIDENTIAL MOBILITY IN LATER LIFE

Research into the residential moving behaviour of older adults often starts from the framework developed by Litwak and Longino (see Bloem et al., 2008). Litwak and Longino (1987) suggest that three types of moves are typical in late life and that these moves coincide with significant life events. The first type of movement (i.e. retirement moves) entails the relocation of older adult after retirement and is motivated by a desire for amenities and comfort. The second type (i.e. comfort moves) centres on older adults moving closer to children or other family members able to help with care when one becomes less able to manage everyday tasks due to increased disability or worsening health (Pope and Kang, 2010). Finally, older adults might relocate to a nursing home or other institutional setting when care needs increase and institutional care is required because family caregivers are no longer able to provide the appropriate level of support (i.e. care moves) (Litwak and Longino, 1987; Longino et al., 2008). Each type of movement is thought to occur at a successive point in the life course (Bloem et al., 2008).

Another established theoretical framework is the push and pull framework, or Retirement-Migration-Model (Wiseman, 1980). Here moves of older adults
are categorised into those motivated by push factors and those motivated by pull factors. Push factors are ‘the life events or circumstances that loosen an individual’s attachment to his or her current residence and lead him or her to consider relocation’ (Gonyea, 2006, p. 563). Common push factors include neighbourhood decline, the death of a spouse, and an inability to function in one’s environment because of worsening health (Pope and Kang, 2010). Pull factors are ‘life events or circumstances that occur at another location and draw an individual toward a new residence’ (Gonyea, 2006, p. 563). Older adults might move for amenities, the opportunity to live closer to family or support network, or to have more affordable or safer housing (Bonvalet and Ogg, 2008). More often than not, older people move for a combination of reasons (Oswald et al., 2002), such as economic security, family crisis, comfort, and health (de Jong et al., 1995).

Both conceptual frameworks have guided recent research on the residential mobility of older adults (Walters, 2002). A different view on residential mobility can be derived from the framework put forth by Lawton and Nahemow (1973). This framework focuses on the fit between older adults and their living environment (Pope and Kang, 2010). According to Lawton and Nahemow (1973), a poor fit between older adults and their environment can result in extreme stress and burden. From this perspective, deteriorating competencies can lead to incompatibility between the individual and his or her housing, which can then result in additional health consequences (Pope and Kang, 2010). For instance, arthritis might lead to an inability to navigate stairs, increasing the likelihood of a fall and even greater physical disability (Erickson et al., 2006). As a preventive measure, older adults might relocate to an environment that better fits their physical abilities, such as a single level home with no stairs (Pope and Kang, 2010). The importance a good fit is also illustrated by Gabriel and Bowling (2004, p. 675) who argue that living in a ‘home and neighbourhood that is perceived to give pleasure’ does significantly contribute to higher quality of life perceptions among older adults.

3. THE DUTCH HOUSING MARKET FOR OLDER ADULTS

Since the mid-1980s, ‘the real-estate market for older adults’ has been referred to by many terms including ‘senior welfare industry’, ‘senior industry’, ‘mature market’, and ‘senior citizen market’ (see e.g. Lazer, 1986; Greco, 1987). In addition to a plurality of terms, defining of the older adults market has also resulted in various age cut-offs (Kim et al., 2003). Some define ‘older adults’ as people over 65 years of age; others have taken a broader approach and included people as young as 55 years (Axelson and Penfield, 1983; Moehrle, 1990; Schwenk, 1995). In addition to that, several age groups have been used (see Harrison, 1986; Täuber,
This discrepancy in the different definitions of the term ‘older adults’ may make generalised data difficult to interpret. In general, a lower limit of 55 years of age is accepted when defining the ‘older adults market’ (Shoemaker, 2000). In this paper the older adults market is defined as ‘people of 55 years of age and older who are consumers of housing products and (social support/health care) services for older adults’.

The residential mobility of this population group is analysed by using data from the Housing Research Netherlands (HRN) 2009 survey. This survey is set up to provide more insight in the developments occurring on the Dutch housing market, and is carried out every three years by the Ministry of Internal Affairs. The HRN data are based on a large cross sectional survey in which information is gathered about the housing situation of people living in the Netherlands. Besides information about the housing situation the survey also contains socio-demographic and socio-economic information, as well as information about the mobility (intentions) and housing preferences. The research population is representative of the Dutch population aged 18 years and older, who are not living in an institution. The HRN dataset of 2009 includes 78,071 observations, of which 29,129 persons are aged 55 years or older.

4. RESIDENTIAL MOBILITY OF THE DUTCH

A total of 11,809 persons in the HRN 2009 survey stated to have moved between 2007 and 2009. If we look at residential migration by age, it becomes clear that the residential mobility peaks at the age group 25–34 (see figure 1). From previous studies it is known that those in their early twenties often undergo a rapid sequence of changes in residence (Plane and Jurjevich, 2005). They complete or leave university or college and typically make one or more early-career job changes and alter their housing and household arrangements – switching partners, entering into first marriages, and perhaps filing for first divorces. As adults pass through their thirties and forties, mobility progressively ceases while people settle into careers, conceive and rear children, buy houses, and pay mortgages (see, for an overview Plane and Jurjevich, 2005).

It is often thought that the traditional retirement age of 65 is the peak age of late life migration, but figure 1 demonstrates that a majority of older adults migrate at an earlier age. It has become rather common for those in their fifties and early sixties to contemplate later career job changes made in conjunction with later-life migration (Plane and Jurjevich, 2005). From figure 1 it furthermore becomes clear that when adults move, they tend to move within the municipality they are already living in. This is even more so for those aged 55 years of older.
The adults that do decide to move to another municipality, in general, move towards less populated municipalities (see figure 2). This pattern is even more visible for the older adults: the older people are, the more they tend to move away from larger municipalities. This pattern is in accordance with the geographical patterns of internal residential mobility of older adults found in other European countries. Previous research has shown that older adults (55+) are more likely to leave than to move to big cities (e.g. highly populated municipalities) (Fokkema et al., 1996). It is often thought that this negative balance of residential mobility of older adults is caused by problems which big cities mainly have to contend with, such as decrease in the accessibility of the neighbourhood due to an increasing amount of traffic, and an increase in (fear of) crime. In addition, the majority of houses in the big cities are flats with no elevator, and the houses are relatively small. These could have a negative effect on the living conditions of the population in general and the older adults in particular. This is contrary to the hard-to-fight ‘myth’ where older adults only move towards larger urban areas in order to be closer to services and amenities (cf. Pope and Kang, 2010; Walters, 2002). Elderly have different motives for moving, either life course events or push and pull factor driven, which can also lead to settlement in smaller less-urban areas. Furthermore, in the Netherlands, services for elderly are not only concentrated in the higher order urban areas.

Fig. 1. Residential migration by age (HRN 2009)
5. DIFFERENCES BETWEEN OLDER ADULT MIGRANTS AND NON-MIGRANTS

From the literature and figures above we expect the following developments in the migration behaviour of the Dutch older adults. With increasing age, the tendency to relocate will decrease. The propensity to move is, however, influenced by personal characteristics such as education, health status and life events (such as retirement). Next the personal characteristics, features of the dwelling and (changing) characteristics of the living environment can also act as triggers for relocation.

In order to test whether or not residential mobility is indeed influenced by individual, dwelling and living environment characteristics, the HRN 2009 data is examined by conducting several chi-square tests. A chi-square test is used to see if there is a relationship between two categorical variables. For this paper we cross tabulated the variable ‘migration’ with several categorical variables representing characteristics of the individual, of the dwelling, and of the living environment (see table 1). The variable migration has two categories: you either moved in the last two years (i.e. migrant) or you did not (i.e. non-migrant). The variables age, education, health, work status and household composition are related to the characteristics of the respondent. The variables tenure, type, size and level are related to the characteristics of the current dwelling.
Table 1. Results of the chi-square tests

<table>
<thead>
<tr>
<th>Specification</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migration * Age</td>
<td>0.16</td>
</tr>
<tr>
<td>Migration * Education</td>
<td>0.36</td>
</tr>
<tr>
<td>Migration * Health</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration * Work status</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration* Household composition</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration * Tenure</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration * Type</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration * Size</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration * Level</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration * Urbanity</td>
<td>0.13</td>
</tr>
<tr>
<td>Migration * Deprivation</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration * Nuisance</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration * Cohesion</td>
<td>0.05 *</td>
</tr>
<tr>
<td>Migration * Attachment</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Migration * Nature</td>
<td>0.37</td>
</tr>
<tr>
<td>Migration * Services</td>
<td>0.00 *</td>
</tr>
</tbody>
</table>

Lastly, the variables urbanity, deprivation, nuisance, cohesion, attachment, nature and services are included as characteristics of the living environment. By doing a two-way-chi-square analysis it is possible to compare if the responses of migrants and non-migrants in the HRN data of 2009 differ significantly.

The variable age consists of three categories: ‘pre-older adults’ (ages 55–64); ‘young-older adults’ (ages 65–74); and ‘old-older adults’ (ages 75 and over). The chi-square results demonstrate that there is no statistically significant relationship between the age distribution of older adults and migration. This indicates that the age distribution of migrants does not differ significantly from the age distribution of non-migrants (see figure 3).

Based on previous research we expected mobility to decreases with age (see Bonnet et al., 2010; de Jong, 2011). Although figure 3 clearly demonstrates that persons aged 65 years or older are indeed found to be less mobile than people aged between 55 and 64, it also demonstrates that migrants aged 55–64 are not overrepresented compared to non-migrants aged 55–64. The results of the chi-square test further indicate that the level of education of migrants does not differ significantly from the level of education of non-migrants. In general higher educated are more mobile than lower educated, but the distribution of higher educated among migrants does not differ from the distribution of higher educated among non-migrants.
There is a statistically significant relationship between health limitations of older adults and migration. According to Pope and Kang (2010), one of the most common push factors includes the inability to function in one’s environment because of worsening health. Compared to non-migrants, migrants indeed (significantly) experience more moderate and severe health limitations (see figure 4), indicating that they might have moved as a reaction to their deteriorating health. However, in general we find that people with no health limitations are more mobile compared to people with moderate or severe health limitations. This could suggest that older adults moved in anticipation of getting older (i.e. deteriorating health).
In line with Litwak and Longino (1987), figure 5 demonstrated that retirees are more mobile than either employed or unemployed older adults. The distribution in work status significantly differs from the distribution of work status of non-migrants. Compared to non-migrants, migrants are more often unemployed and less often employed. The chi-square results further demonstrate that there is statistically significant relationship between the household composition of older adults and migration. The household composition of migrants differs significantly from the household composition of non-migrants. This significant difference in household composition is mostly due to the fact that migrants are more often single compared to non-migrants (45% vs 40%). The majority of migrants are pairs without children (48%).

All characteristics of the dwelling are significantly associated with the migration of older adults. This illustrates that the characteristics of the dwellings of migrants differ significantly from the characteristics of the dwellings on non-migrants. Compared to non-migrants, migrants more often occupy rental dwellings and less often own their house. The majority of migrants are public renters. There is also a statistically significant relationship between type of dwelling and late life migration. Among the migrants the majority lives in an apartment (68%), among the non-migrants the majority lives in a house (64%). In general, older adults predominantly reside in houses (e.g. single family homes). This illustrates that late life migrants show a remarkable difference in behaviour on the Dutch housing market.

Compared to non-migrants, migrants more often reside in smaller scaled dwellings (see figure 6). They also seem to prefer single level houses: 56% vs 31% for non-migrants. This result corresponds with Pope and Kang (2010), who claimed that older adults might relocate to environment that better fits their physical abilities, such as a single level home with no stairs, as a preventative measure.
Fig. 6. Size of dwelling

Fig. 7. Urban level of the municipality
The chi-square results demonstrate that there is no statistically significant relationship between the urban level of the municipality in which older adults reside and later-life migration (see figure 7). This indicates that the urban level of the municipality does not differ significantly among migrants and non-migrants. It is, however, interesting to see that a majority of the migrants report that they have moved towards severely urban municipalities. This is contrary to what we expected to find based on the pattern illustrated in figure 2. A possible explanation for this is that the relocations of older adults within the same municipality predominantly take place within the more urbanised municipalities. The older adults who decide to move to different municipality most probably decide to move to less urbanised municipalities. Compared to non-migrants, migrants live in neighbourhoods with significantly less deprivation (see figure 8), less nuisance and higher levels of social cohesion. This is in line with results found in previous research (see e.g. de Jong, 2011).

Not surprisingly, older adults that have moved in the last two years tend to be less attached to their current neighbourhood than older adults that did not move (see figure 9). Previous research indicates that one of the strongest influences on feeling at home at a specific location is the length of residence in an area (Bonaiuto et al., 1999). This could explain why migrants experience a significantly lower level of neighbourhood attachment. However, the majority of migrants (59%) did report that they feel attached to the neighbourhood they relocated in. This possibly means that later-life migrants are moving towards areas they have lived in before and therefore have positive sentiments (i.e. attachment) towards this area.
According to the literature overview the residential mobility of older adults can be motivated by a desire for amenities and comfort. Here you can think about natural amenities as well as amenities in the form of services. We found no evidence for the effect of nature. Migrants and non-migrants reported to be equally satisfied with the amount of nature in their neighbourhood (82% vs 81%). We did find an effect for services. Compared to non-migrants, migrants live in areas where there is a richer supply of services for elderly. However, the majority of migrants (79%) still moved to areas with little services for elderly. These results, therefore, do not confirm that older adults tend to move for amenities.

6. CONCLUSIONS AND DISCUSSION

In the real estate market for older adults, one of the biggest challenges in the upcoming years is to provide suitable housing conditions. For the period 2006 to 2015 it has been estimated that there is a shortage of 406,000 houses in the Netherlands suitable for older adults (Sogelée and van Galen, 2007). This estimate is based on the current shortage of appropriate housing, the expected extra demand due the ageing of the Dutch population, as well as the expected extra demand due to fact that more and more older adults prefer to live extramurally (e.g. ageing in place). For the realisation of appropriate housing conditions for older adults, the Dutch government depends on the construction of so-called ‘nultreden woningen’ (i.e. single level dwellings) (van Iersel et al., 2010). The growth in the proportion of older adults in (Dutch) population is expected to continue after 2015, indicating that the current housing policy might not be sufficient in the long run. From this,
an important question is whether we should continue and intensify the current housing policy, or whether we should diversify the building of new dwellings for older adults? With respect to the indication of the obvious diversity in moving-age as well as diversity in background characteristics, the diversification of new-built dwellings clearly has the preference.

The contribution of this study is that we find evidence for differences in moving behaviour within the group of older adults. The two-way-chi-square analyses results from the HRN 2009 survey on the migration behaviour of Dutch older adults confirm that Dutch older adults do not behave the same in the housing market. The differences in residential moving behaviour can be ascribed to different attributes; individual as well as housing and living environment characteristics. These findings are in line with the expected results from the life course frame work (elderly tend to move when life-course events are apparent, such as retirement and health deprivation), the push-pull model (certain dwelling attributes can act as pull-factors, but neighbourhood decline can be seen as an important push factor). The results of these descriptive analyses do not reveal the specific motivations of older adults for relocation, but this will be addressed in future research.

Older adults are healthier, stay healthy for a longer time and perceive higher quality of life when living in a dwelling and neighbourhood that is perceived as pleasurable (Gabriel and Bowling, 2004). This underlines the importance of the current study and reflects the growing awareness that ageing requires timely and adequate reactions in (housing) policy. In order to contribute to a better grounding of housing policy with respect to the growing diversity within the older population, further insight into the diverse housing preferences and residential mobility patterns is necessary. Further research on the moving behaviour of older adults and their specific wishes for their dwelling and living environment can be done in different ways. Investigating the desired neighbourhood characteristics and dwelling specific characteristics by older adults can be done through large surveys (e.g. conjunct analyses, ranking, stated preferences) and can be elaborated by in-depth interviews and/or focus groups where older adults can discuss the current housing stock and indicate which features do not conform to their wishes. Qualitative research might also help older adults ‘predict’ their own wishes for the future.

REFERENCES


