Exploring the age-friendliness of purpose-built retirement communities: evidence from England

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ABSTRACT

This article contributes to emerging debates around age-friendly environments, providing empirical evidence concerning the relative age-friendliness of purpose-built retirement communities. Adopting a new definition – 'underpinned by a commitment to respect and social inclusion, an age-friendly community is engaged in a strategic and ongoing process to facilitate active ageing by optimising the community's physical and social environments and its supporting infrastructure' – the article analyses the age-friendliness of one retirement community in England. The Longitudinal Study of Ageing in a Retirement Community (LARC) encompassed two waves of a survey with residents, interviews and focus groups with stakeholders involved in staffing, managing and designing the community, and other qualitative data collected from residents. Reviewing the different data sources, the article argues that purpose-built retirement communities have the potential to be age-friendly settings but might better involve residents in a regular cycle of planning, implementation, evaluation and continual improvement if they are to facilitate active ageing. In addition, more clarity is needed on how such developments can better fit with the age-friendly agenda, particularly in terms of their capacity to support ageing in place, the accessibility of the wider neighbourhood, opportunities for inter-generational interactions, and the training of staff to work with older people.

KEY WORDS – age-friendly communities, retirement communities, housing, older people, environmental gerontology, England, mixed-methods.

Introduction

Combined global trends of population ageing and urbanisation have contributed to an increasing policy focus on developing 'age-friendly'

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communities (World Health Organization (WHO) 2007*a*) and specific governmental initiatives to develop such communities. These include, for example, the Québec government's 'Aging and Living Together Policy' that accompanies a five-year action plan incorporating the CAD $20 million 'Age-friendly Québec Program' (Secretariat aux Aînés du Ministère de la Famille et des Aînés 2011) and Taiwan's national Age-friendly Cities programme, which aims to include all 22 of the country's municipalities from 2013 (Taiwan Department of Health 2012). Despite notable exceptions (Buffel, Phillipson and Scharf 2012; Lui *et al.* 2009; Menec *et al.* 2011), few academic studies explore key issues associated with the age-friendly agenda. In particular, there is a paucity of conceptual development relating to age-friendliness and limited empirical evidence concerning the features that make communities age-friendly.

This article contributes to emerging conceptual debates around age-friendly environments, providing evidence relating to the relative age-friendliness of a specific setting. Our focus is on exploring purpose-built retirement communities as environments that one might assume to be age-friendly by default. While such communities have emerged as a housing option for growing numbers of older people, they have not been subject to critical examination through the lens of age-friendliness. Consequently, the article has four aims. First, it reviews the emerging literature on age-friendly environments to identify common features of age-friendly communities. Second, in relation to these features, it examines empirical evidence from United Kingdom (UK)-based studies of purpose-built retirement communities to assess the degree to which such communities may be regarded as age-friendly. Third, it reports findings from a mixed-methods study in one purpose-built retirement community in the UK to explore age-friendliness in a more comprehensive way. Finally, the article draws out implications for future research, policy and practice development in relation to age-friendly environments.

Age-friendly communities: the debate so far

Encouraging the development of age-friendly environments to promote 'active ageing' is an increasingly important policy issue. In part, this represents a response to global urbanisation and population ageing trends that have intensified consideration of the housing and community needs and aspirations of people living in different types of environments, and of older people in particular (WHO 2007*a*). There has also been a strong policy commitment in developed economies to 'ageing in place', driven by concerns about the financial cost of institutional provision (Means 2007)

and by the belief that 'older people, particularly as they grow more frail, are able to remain more independent by, and benefit from, ageing in environments to which they are accustomed' (Rowles 1993: 26). In addition, there has been growing interest in what makes places 'good' to age in. These types of environment are referred to using such terms as 'age-friendly', 'lifetime', 'livable' and 'elder-friendly' (Emlet and Moceri 2012; Lui *et al.* 2009). Such terms are used more frequently in relation to particular types of environment and also tend to be culture specific. While 'livable community' is more common in the United States of America, 'lifetime neighbourhood' has been adopted by UK policy makers (Lui *et al.* 2009).

Whatever the terms used, models of age-friendly environments differ according to the features emphasised as important. For example, the New York AdvantAge framework suggests that an 'elder-friendly' community addresses basic needs, optimises health and wellbeing, maximises independence for frail and disabled people, and promotes social and civic engagement (Feldman and Oberlink 2003) in ways that foster social connections and contributions (Emlet and Moceri 2012). In comparison, a 'livable community' comprises eight overarching dimensions: transportation, walkability, safety and security, shopping, housing, health services, recreation and cultural activities, and caring and mutual support (AARP 2005). Other initiatives concentrate on single elements of age-friendliness, such as age-friendly *built* environments (Australian Local Government Association 2006). A review of international literature identified that while some models focus more on certain dimensions than on others, most approaches involve integrating the physical and social environments through policies, services and structures (Lui *et al.* 2009). Often, too, the models emphasise a bottom-up approach in which older people's participation and empowerment are seen as fundamental (Garon and Veil 2011).

Alongside the development of age-friendly environments, various assessment tools have been created such as the AdvantAge framework, which incorporates 33 indicators related to topics such as housing and opportunities for volunteer work (Feldman and Oberlink 2003), and the Lifetime Neighbourhoods report (Bevan and Croucher 2011), which emphasises resident empowerment and includes a checklist of items for residents to consider as part of community-planning processes. However, as with these two examples, each model of age-friendliness adopts different indicators. In 2005, the WHO coined the term 'age-friendly city' for the launch of its Global Age-friendly Cities Project. This project sought to develop a common understanding of cities' features that are important in facilitating 'active ageing' (WHO 2007*a*) – an explicit premise for the development of age-friendly cities in Québec (Garon and Veil 2011;

Paris *et al.* 2011). The WHO defines active ageing as 'the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age', where 'active' refers to 'continuing participation in social, economic, cultural, spiritual and civic affairs, not just the ability to be physically active or to participate in the labour force' (WHO 2002: 12). This interpretation of active ageing as a lifelong process highlights that an age-friendly city is 'friendly for all ages and not just "elder-friendly"' (WHO 2007*a*: 72). In developing this approach, focus groups with older people, care-givers and service providers from 33 cities in developed and developing countries were used to explore features of these cities' structures, environments, services and policies in terms of their age-friendliness. Outdoor spaces and buildings, transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, and community support and health services were used as overarching categories. Themes identified in each city were drawn into an 84-item checklist of features of an age-friendly city within these eight categories (Plouffe and Kalache 2010; WHO 2007*b*).

The WHO checklist is not intended to provide a way of ranking the age-friendliness of different cities, but encapsulates a 'universal standard for an age-friendly city' (WHO 2007*a*: 11). Cities may make improvements over and above features specified in the checklist, and there is an underlying assumption that all cities can continue to improve in the specified areas. In this context, cities wishing to participate in the WHO Global Network of Age-friendly Cities must also 'commit to a cycle of continually assessing and improving their age-friendliness' (WHO 2009: 1). This cycle involves planning, implementation and evaluating progress – all of which, the WHO advocates, should involve older people's participation.

The WHO's focus on age-friendliness in cities has been accompanied by related developments in other types of community. In Ireland, where there is a substantial rural older population (Evason and Devine 2005), the National Age-friendly Counties Programme has the ambition to be extended to every local authority, both rural and urban (http://www.ageingwellnetwork.com/). A similar approach has been taken in Taiwan (Taiwan Department of Health 2012). In Canada, a guide and checklist have been produced as part of an Age-friendly Rural and Remote Communities Initiative (Federal/Provincial/Territorial Ministers Responsible for Seniors 2009). While the overarching categories in these documents are identical to those used by the WHO (2007*a*, 2007*b*), the age-friendly features within them have been adapted for rural and remote community settings in response to findings from empirical work in eight Canadian provinces. Elsewhere, innovative methods have been developed for use in non-city settings, such as Web-based approaches to help communities to become more age-friendly

(Lehning, Scharlach and Dal Santo 2010). However, notwithstanding various reports on the process of establishing age-friendly programmes in non-urban settings (*e.g.* Bronstein, McCallion and Kramer 2006), most discussion focuses on city contexts (*e.g.* Netherland, Finkelstein and Gardner 2011). More significantly, there is as yet limited evaluation of the impact of age-friendly initiatives on older people's lives (Beard and Petitot 2010; Lui *et al.* 2009).

With an increasing focus on age-friendliness in non-city environments, Alley *et al.* (2007) draw attention to one of the broad issues in conceptualising age-friendly communities. Drawing on person–environment perspectives, age-friendly communities aim to moderate the demands of the environment to fit better with individuals' capabilities and functioning. Given diversity amongst both individuals and environments, Alley *et al.* (2007) highlight that age-friendly communities are likely to vary in their emphasis. They give the example that a rural community may need to focus on access to services through better transportation, while an urban community may emphasise walkability. Just as Phillipson (2011) identifies that age-friendliness should be applied in a way that acknowledges complexity, change and variation in city environments, age-friendliness at a community level, and in non-city environments, also needs to recognise these factors. Menec *et al.* (2011) argue that some of these issues can be addressed by applying an ecological perspective that supports a more holistic and dynamic approach to age-friendliness. Such an approach would recognise the interrelation of different dimensions, rather than examining them in isolation from other influences such as intrapersonal factors. In addition, factors such as age, gender, attitudes and health status mean that age-friendliness should be compatible with, and incorporate, this heterogeneity. The conceptualisation of age-friendly communities proposed by Menec *et al.* (2011) is underpinned by a commitment to respect and social inclusion and incorporates seven dimensions: the physical environment; housing; the social environment; opportunities for participation; informal and formal community supports and health services; transportation options; and communication and information. Although these dimensions could be grouped into just two domains, the physical and social environments, Menec *et al.* (2011) argue that including more dimensions can emphasise aspects of the environment that may otherwise be overlooked.

Age-friendly communities: a new definition

The complexity of conceptualising age-friendly communities has inhibited the development of a common definition of age-friendliness. Despite the

multitude of initiatives to apply age-friendly approaches to non-city settings, there is still no consensus around defining age-friendliness at the community level. None of the existing definitions appear to reflect adequately the existence of, or potential for, a broader application of age-friendly approaches to the variety of environments and contexts in which people live and age. Alongside the consideration of city environments, age-friendly communities could include other geographically located communities such as those in rural areas, non-city urban areas, retirement communities, workplaces or organisations, as well as communities of interest or virtual communities that may have no shared geographic location. While the WHO definition of an age-friendly city as 'an inclusive and accessible urban environment that promotes active ageing' (WHO 2009) is often cited, this clearly does not suit non-city environments. Where age-friendliness has been examined in such environments, the unsuitability of the WHO age-friendly city definition has led to the use of other sections of the WHO guide that describe *how* an age-friendly city promotes active ageing to define an age-friendly community (*e.g.* Federal/Provincial/Territorial Ministers Responsible for Seniors 2009; Gonzales and Morrow-Howell 2009; Menec *et al.* 2011). While this allows the age-friendliness concept to be applied to broader settings, it fails to address weaknesses with the existing WHO definition as applied to non-city contexts.

Given the need for greater conceptual clarity, we propose a new definition of an age-friendly community that combines elements from existing approaches yet extends the focus beyond cities:

Underpinned by a commitment to respect and social inclusion, an age-friendly community is engaged in a strategic and ongoing process to facilitate active ageing by optimising the community's physical and social environments and its supporting infrastructure.

This definition builds on the emerging literature around the diversity of age-friendly communities, and emphasises that age-friendliness involves being part of a continuous process of improvement rather than maintaining a focus on specific approaches or features. The definition recognises that interpretations of 'community' are highly contextualised and vary across environmental and cultural settings. However, an overarching principle is that 'community' is an inclusive concept that prioritises the participation and empowerment of its members, especially older people, in its creation and functioning. Key characteristics of age-friendliness fall within five categories: a strategic and ongoing improvement process; the physical environment; the social environment; the supporting infrastructure; and respect and social inclusion. Rather than replacing the eight themes identified in the WHO (2007*a*) framework, these categories are used as a way of organising them to fit with a definition that encompasses a broader range of age-friendly

approaches and environments. Retaining the original WHO themes (in italics below) within the new categories ensures that the emphasis on particular environmental features, such as housing, is not lost (Menec *et al.* 2011).

The first of the five categories in our new definition aims to ensure a stronger focus on the improvement process. While the commitment to engaging in a 'cycle of continual improvement' is a requirement of membership of the WHO's Global Network of Age-friendly Cities (WHO 2009: 1), this commitment to process is not explicit in the WHO's definition. In emphasising that age-friendliness represents a process, rather than a standard to be reached by 'ticking boxes', the new definition aligns with arguments made by scholars such as Lawler and Berger (2009: 78) who, when describing the 'Lifelong Communities' project, explain that developing an age-friendly community should not be seen as 'a project with a start and end', but has to become 'a way of doing business'. It also accords with the requirement that 'age-friendly' communities are engaged in long-term strategic planning, implementation and evaluation (WHO 2009). Age-friendliness demands good information provision and communication within the community about this process, and the genuine participation of relevant stakeholders, especially older people, at all stages to ensure that the process is negotiated with, rather than imposed on, members of the community. Moreover, the focus on optimisation should be directed clearly at facilitating the lifelong process of active ageing and improving quality of life for older people in order to address what Menec *et al.* (2011) highlight as tensions between positive aspects of civic engagement and underlying agendas around the devolution of government responsibilities to individuals and communities. A focus on these outcomes would also fit with a more holistic approach that avoids factors, or checklist items, being viewed in isolation, thereby reducing the risk of changes related to one specific factor being ineffective due to the failure to address other associated factors (Biggs and Tinker 2007).

A second category – the physical environment – comprises the dimensions of *outdoor spaces and buildings* and *housing*. An extended definition might usefully incorporate public and commercial indoor spaces, including for example shops, health centres and cultural facilities. The third category – the social environment – combines *social participation* and *civic participation and employment*. A fourth category expresses the need for a supporting infrastructure and encompasses the domains of *transportation*, formal and informal *community supports and services* including, but not limited to, *health services*. Finally, *respect and social inclusion* are fundamental to the idea of age-friendliness in terms of tackling widespread erroneous beliefs about ageing and older people, but also to ensure that older people are empowered within

their communities and not excluded from the capacity to influence decisions that affect their lives due to a lack of appropriate *communication and information* options. Although these themes cut across each of the other four categories, such is their importance that there is merit in considering them as dimensions in their own right.

Having proposed a new definition of an age-friendly community, we now proceed to assess the degree to which it is possible to identify the age-friendliness of a particular type of community setting. Reflecting the recommendation made by Menec *et al.* (2011) to explore what age-friendliness means in contrasting settings, we seek to do this by reviewing age-friendliness in the context of purpose-built retirement communities.

Age-friendliness of purpose-built retirement communities: evidence from UK research

Recently, there has been much debate in the UK about how best to meet ageing adults' housing needs. Until the change of government in 2010, purpose-built developments, and retirement communities in particular, were supported in policy as a new model of housing and care for older people (Bernard *et al.* 2012; Evans 2009; Office of the Deputy Prime Minister 2003). It is not yet known whether the current Conservative–Liberal Democrat coalition will implement alternative policy initiatives around housing and older people. However, it has indicated that it will encourage the development of 'innovative' and 'specialised housing options' for older people (Department for Communities and Local Government (DCLG) 2011: 49), announcing a capital grant worth up to £300 million (Homes & Communities Agency 2012) to 'support the development of specialised housing for older and disabled people' (Department of Health 2012: 10).

The fact that retirement communities have been suggested to fit with broader policy goals around the development of 'lifetime neighbourhoods' (DCLG 2008) – which Andrews (2008: 607) identifies as a concept that sits 'within the notion of the "age-friendly city"' – would suggest that they might fit well with the growing interest in age-friendliness, and perhaps even be labelled as 'age-friendly communities'. At first glance, it may seem obvious that communities developed specifically to meet older people's needs would be 'age-friendly'. Indeed, the promotional material for retirement villages tends to portray images of healthy individuals living lifestyles of leisure in clean, well-maintained, secure and hassle-free environments (Grant 2006) – all attributes that, on paper, accord well with active ageing and age-friendliness. Despite the apparent congruence between the growing interest in age-friendliness and the increasing numbers of purpose-built retirement

communities in the UK (Bernard *et al.* 2004; Evans 2009), this has not yet been examined in research. The complexity of the relationship is, however, demonstrated by contrasting views of age-segregated developments. For example, while Scharlach (2009) sees age-specific retirement communities and retirement housing as two types of 'ageing-friendly' initiatives, Rosenthal (2009) suggests that local authorities should move away from translating 'ageing-friendliness' into age-segregated environments that create homogeneous age zones.

In the UK, the term 'retirement community' is often used to encompass a broad range of housing options, including privately owned apartments, continuing-care retirement communities, extra-care housing schemes and purpose-built retirement villages – some of which also include a care home (Bernard *et al.* 2012; Evans 2009). UK retirement villages tend to be much smaller developments than their counterparts in North America, but they are relatively large in their UK context, where they generally comprise over 100 dwelling units (Croucher, Hicks and Jackson 2006), notwithstanding the fact that some surprisingly small developments have been labelled as 'villages' (Laing & Buisson 2011). As they are managed by private or not-for-profit organisations (Croucher, Hicks and Jackson 2006), and presumably due to definitional issues, there are no official figures for the number of retirement communities in the UK. However, the Elderly Accommodation Counsel (EAC) currently lists 97 developments described by their developers and managers as 'retirement communities' or 'retirement villages' (http://www.housingcare.org/elderly-uk-retirement-villages.aspx). At present, while there is no shared definition of what constitutes a retirement community or village in the UK, we have chosen to use self-definition as a way of distinguishing between different housing options, although we acknowledge that the EAC database appears to exclude extra-care housing despite the fact that some retirement villages provide extra care.

Aside from the study presented below, our review of the literature identified three major studies of specific retirement communities in the UK that have presented sufficient detail to permit dimensions of their age-friendliness to be assessed. Each study pre-dates the WHO age-friendly cities framework. The first study was based at Hartrigg Oaks, a retirement community in the North of England (Croucher, Pleace and Bevan 2003), the second at Berryhill retirement village in the West Midlands (Bernard *et al.* 2004, 2007), and the third at Westbury Fields retirement village in South-West England (Evans 2009; Evans and Means 2007). Table 1 summarises reported findings from each of these studies as they relate to the WHO (2007*b*) framework, while also presenting information concerning the presence of a strategic improvement process (one of the five dimensions

TABLE 1. *Age-friendly characteristics of purpose-built retirement communities: secondary analysis of empirical studies in the United Kingdom (UK)*

		Empirical studies in the UK		
Proposed domains of age-friendliness	World Health Organization dimensions of age-friendliness	Berryhill retirement village (Bernard *et al.* 2004, 2007)	Hartrigg Oaks retirement community (Croucher, Pleace and Bevan 2003)	Westbury Fields retirement village (Evans and Means 2007)
Strategic improvement process				Customer views integrated into service development on on-going basis.
Physical environment	Outdoor spaces and buildings	Berryhill is a single building; some issues raised about distance from apartments at the building's extremes to (centrally located) lifts.	Design feature of uneven paving in one area seen as inappropriate and unsafe, particularly for residents using mobility scooters.	Some residents felt there were not sufficient/suitable outdoor spaces for them to exercise in.
	Housing	All flats designed to be suitable for wheelchair users. Some residents felt they lacked space, owing to small size of flats. Flats often too warm for residents. Residents generally felt safe and secure.	Bungalows built to Lifetime Homes Standards. Accommodation larger than typical retirement community accommodation. Some design features difficult for residents with poor eyesight or arthritis.	'Comfort and design', 'size and space' and 'condition of property' highly rated by residents. Some residents felt that some design aspects were not accessible. Residents rated safety of homes highly.
Social environment	Social participation	Village had range of venues for activities and events. Welcome pack for new residents included details of facilities and activities; some residents unaware of certain amenities. Most activities had charge attached. Some residents felt that being part of a couple restricted activities they could take part in. Range of activities offered on-site and off-site.	Development included range of facilities and venues for activities. Community located close to city centre. Some residents, particularly those with sensory impairments, found it difficult to leave their homes and take part in activities.	Layout did not provide equal access to all facilities from all areas of site. Location of/ distance to activities an issue for some residents. Village had range of facilities and venues for activities; no shop. Activities co-ordinator organised range of events and activities. Some activities had charge attached. Development within walking distance of shops, restaurants and other amenities.

	Civic participation and employment	Many opportunities for residents to volunteer within and beyond village.	Village had various social and interest groups set up and run by residents.	
Supportive infrastructure	Transportation	All flats had allocated parking spaces. Users of bus service generally satisfied. Taxis unreliable and many residents had stopped using them.	All properties had allocated parking space. Community minibus available for residents' use, but not wheelchair-friendly. Public transport provided access to local shops and city centre.	Village had two vehicles available for trips and outings, but some residents found them uncomfortable or difficult to use. Three public bus routes passed near village, but one about to be discontinued. Sunday bus service not as good as on other days.
	Community, support and (health) services	Four levels of support package available; residents could purchase help with housekeeping, shopping, pension collection and laundry.	Support and care services, including repairs and maintenance, housekeeping and care home, available on site. Village close to district hospital, general practitioner practice and other health services.	Support services included housekeeping, personal care, shopping and laundry. Care home with short-term care unit and specialist wing for people with dementia. Range of on-site health interventions.
Respect and social inclusion	Respect and inclusion	People in local neighbourhood and some professional stakeholders, including some staff in village, held misperceptions about village and its residents.	Some residents held negative attitudes towards disability in the community.	Residents appreciated commitment, flexibility and dedication of staff. Village bus service flexible and driver considerate. Some residents intolerant of other residents who were physically frail.
	Communication and information	Monthly street meetings provided information and opportunities for residents to voice concerns. Noticeboards, monthly newsletters and in-house television service used to convey information.	Residents could express views through elected 'Residents Committee'. Staff generally supportive of residents having control, but some felt there should be more clarity around circumstances under which residents should be consulted. Some staff felt residents had too much power.	Village had 'Residents' Inclusive Forum', which met regularly to discuss issues. Tenants of very sheltered housing met at separate forum. Discussions also took place at monthly afternoon tea (run by residents) that operations manager often attended.

highlighted in our new definition of an age-friendly community). Other UK studies were excluded because: they focused on smaller extra-care developments rather than villages (*e.g.* Evans and Vallelly 2007); the authors reported information about several schemes, but did not provide sufficient information about individual schemes to enable their age-friendliness to be judged (*e.g.* Callaghan, Netten and Darton 2009; Croucher *et al.* 2007); or their aim was to map the development of a village and the report consequently did not cover a substantial time period when the village was complete, for example transport links were not yet in place (*e.g.* Croucher and Bevan 2010).

Looking first at the strategic improvement process, just one study (Westbury Fields) referred to an on-going process of integrating resident views into service development. However, it is unclear whether this could be described as aiming to optimise the physical and social environment and supporting infrastructure in order to facilitate active ageing. The fact that such processes were not otherwise mentioned does not imply that other developments lacked such processes but, if they did, these were not reported.

In the other categories, the reported findings broadly related to the eight themes comprising the WHO framework, but mostly did not match specific WHO checklist items. This may be attributed to the fact that these studies pre-dated the WHO framework, but also reflects limitations of the WHO checklist in relation to physical design issues. For example, within the physical environment category, reported findings around outdoor spaces and buildings often related to accessibility. At Berryhill, Bernard *et al.* (2004) found that health-care professionals did not consider the building's design to be ideal for residents with specific mental health conditions, and the weight of doors often proved problematic for residents. However, these findings do not correspond to items on the WHO checklist, which includes more items relating to pavements and walkways than those relating to buildings.

While none of the three studies was explicitly designed to explore age-friendliness, such limited coincidental matching between the findings reported and items on the WHO checklist makes it difficult to examine age-friendliness in retirement communities in the existing literature. We now seek to address this issue by adopting a more systematic approach to explore the age-friendliness of Denham Garden Village (DGV) – a purpose-built retirement community in Buckinghamshire, South-East England. Originally opened in 1958 to provide accommodation for retired publicans,[1] in 2001 DGV was taken over by Anchor Trust (the largest provider of retirement housing and care for older people in England), who redeveloped the site. The village now comprises 326 mixed-tenure houses, bungalows and apartments for people aged 55 and over. It has a range of facilities including

a café bar, village hall, general practitioner (GP) surgery, gym and swimming pool (Bernard *et al.* 2012).

Using the five categories of age-friendliness identified above, we now address the question 'what is the evidence from DGV around the key characteristics of an age-friendly community?'

Methods

Our data arise from the Longitudinal Study of Ageing in a Retirement Community (LARC), a four-year mixed-method study of DGV. Involving older people and understanding their preferences, perceptions and experiences is central to the process of age-friendliness. By bringing together different types of data from LARC, we can present a nuanced view of the community that is centred on older people's understandings. Findings concerning each characteristic of age-friendliness are drawn together from several LARC data sources to ensure that characteristics are discussed using the most relevant type(s) of data. We present data arising from ethnographic observational work, quantitative surveys, interviews with key individuals, focus groups with DGV staff, and 'directives' (responses written by residents, described below). Fieldwork took place between 2006 and 2010. Brief details about each method are provided below and further information is available in technical reports (http://www.keele.ac.uk/larc/downloads).

Throughout the LARC study, members of the research team visited DGV regularly and kept notes of their observations. These included accounts of how spaces in the village were used, activities that took place, and conversations and interactions. Researchers also wrote field notes after they completed questionnaires with residents. Quantitative surveys were conducted with residents in 2007 and 2009. Seventy per cent (N=122) of eligible DGV residents participated in the 2007 survey and 63 per cent (N=156) in the 2009 survey. Where different N values are reported below, this is due to missing data for some residents for individual questionnaire items. The surveys were completed through questionnaires administered face-to-face by members of the research team. An additional short self-completion questionnaire was sent to DGV staff in 2010. Responses were received from 12 of the 36 staff named on a list provided by DGV Management.

Semi-structured qualitative interviews were undertaken with 16 key individuals involved in the redevelopment and management of DGV. These individuals included senior staff members and individuals from the architects' practice, estate agents, and marketing agencies working on the redevelopment. Their involvement had been at either an operational or a

strategic level. In addition to the surveys and interviews with staff, two parallel focus groups were conducted with staff members as part of a workshop attended by ten DGV staff members in 2010. Discussions within each group were facilitated by a member of the research team.

This article also draws on LARC directives, a research technique originating with the Mass Observation Archive (www.massobs.org.uk). LARC directives, issued twice each year, were invitations to residents to write on particular topics. Here, quotations from directives are used as illustrative examples of residents' views on particular issues, written in their own words.

A variety of techniques were used to draw these different data sources together to explore age-friendliness at DGV. Each of the 84 WHO checklist statements was matched with relevant questions in the two surveys, with descriptive statistics then produced for each item. Qualitative data were read to identify content that could provide insight into any of the WHO checklist items. Up to four WHO checklist items were then chosen from each of the overarching characteristics based on the amount and relevance of data available (a discussion of each checklist item is beyond the scope of this article). The same process was completed to identify data that could be used to explore the strategic improvement process category.

Findings are presented under the headings of the five categories of age-friendliness identified above (strategic and ongoing improvement process, physical environment, social environment, supportive infrastructure, and respect and social inclusion); they are also sub-divided to reflect the WHO framework's eight dimensions of age-friendliness. With the exception of the strategic improvement process, data are discussed in the context of specific WHO checklist items. In some cases, the data are used to explore the item as a whole, and in other cases they relate to part of a checklist item. On occasion, no relevant data are available from LARC. This applies, for example, to the category 'Decision-making bodies in public, private and voluntary sectors encourage and facilitate membership of older people'. All residents' names used are pseudonyms.

Findings: Denham Garden Village as an age-friendly community?

Strategic and ongoing improvement process

The existence of a strategic and ongoing improvement process to facilitate active ageing was not articulated by those involved in the redevelopment and management of DGV. However, elements of an overarching aim to optimise the physical and social environments and supportive infrastructure are visible in accounts given by those involved in the village's redevelopment and

management. For example, one such individual talking about the main objectives for DGV felt that they were:

... to make the lives of older people a pleasure to live. An easy life with minimal stress and anxiety, so, if they want something and we can do it, we do it ... to just keep building on what we've achieved so far, so making life easier for people, developing the services that make life easier.

Notwithstanding the lack of a visible strategic improvement process to facilitate active ageing, comparing the results from the LARC surveys in 2007 and 2009 suggests that residents perceived a small improvement in the village over this period. While the mean score residents gave DGV overall in response to the question 'all things considered, what score out of 10 would you give Denham Garden Village?' was fairly consistent (7.9 out of 10 in 2007 and 8.1 in 2009), this may have been due to improvements in some areas being balanced by declines in others. When residents were asked a more specific question about whether the village had improved as a place to live in, there appeared to be a general perception that there had been an improvement. In 2007, 29 residents (31%) disagreed or strongly disagreed with the statement 'During the last two years the village has got better as a place to live' (N=95) compared to 27 residents (19%) in 2009 (N=140). However, in 2007, 91 per cent of residents (108) envisaged that DGV would be their home for the rest of their lives (N=119), but in 2009 this had fallen to 88 per cent (136; N=154), indicating that fewer residents perceived that DGV could support them to age in place.[2]

Physical environment: outdoor spaces and buildings

'Public areas are clean and pleasant'. In general, residents at DGV were satisfied with the village's cleanliness. Of the 156 residents surveyed in 2009, 142 (91%) agreed or strongly agreed with the statement 'all things considered, the environment of the village is healthy (air quality, green spaces, cleanliness)'.

'Pavements are well-maintained, free of obstructions and reserved for pedestrians'. Although pavements within DGV are well-maintained, those just outside the village are not all of the same standard. As a result, residents wishing to access the neighbourhood and local shops outside DGV reported problems. For example, Catherine Webb's son lived just a few minutes away from DGV. Before moving to DGV she had thought she would be able to visit him using her mobility scooter, but she felt that it was too dangerous to do so because the pavements outside the village were unsuitable. Molly Hughes reported that she had tripped on uneven paving just beyond the entrance to DGV, and also recounted that another resident had fallen in a similar way

and broken his shoulder. She felt that the condition of the pavement was extremely poor.

While most pavements in the village are free of obstructions, owing to limited parking space there have been ongoing issues with cars parking outside designated parking areas, on pavements, and in areas designed as 'shared spaces' with no kerbs – intended to avoid the traditional segregation of pedestrians and vehicles. While there have been attempts to deal with this problem, including the introduction of more signs, when the research team finished fieldwork at DGV in 2010 cars were still regularly parked on pavements, obstructing the way for pedestrians and those using mobility scooters.

Physical environment: housing

'*Sufficient, affordable housing is available in areas that are safe and close to services and the rest of the community*'. The DGV site has been designed to provide facilities such as a shop, café bar and swimming pool in close proximity to housing. These facilities are centrally located within the village and, in 2009, 144 residents out of 152 (95%) agreed or strongly agreed that their own property was 'conveniently located for the shops, library, gym, and other regular activities in the village'. In addition, 135 residents (96%) agreed or strongly agreed that their property was a suitable distance from their friends in the village (N=141). The village was also perceived by residents as being safe. Andrew Holmes described the village as offering 'self-containment and security', while Rose Cross noted 'the feeling of living in a secure area' as an advantage of living in DGV. There were 143 residents (94%) who agreed or strongly agreed that they felt safe outside their property but inside the village (N=152). However, while 76 residents (88%) agreed or strongly agreed that they felt safe in the neighbourhood outside DGV in the day (N=135), only 41 residents (46%) agreed or strongly agreed that they felt safe in the neighbourhood outside DGV after dark (N=90).

'*Housing is well-constructed and provides safe and comfortable shelter from the weather*'. DGV has 326 properties, including houses, bungalows and apartments. In the 2009 survey, residents were asked various questions about their own properties. The majority (145; 93%) agreed or strongly agreed that their property was as warm as they would like (N=156), and 131 residents (83%) agreed or strongly agreed that their property was as light and sunny as they wished it to be (N=156). These high levels of agreement suggest that residents perceive their properties as providing comfortable levels of warmth and light.

'*Indoor spaces and level surfaces allow freedom of movement in all rooms and passageways*'. All properties at DGV have been designed to meet Lifetime Homes Standards, which aim to 'make getting in and around the home easy for everyone' (DCLG 2008: 88). Results from the 2009 survey suggest that this is generally the case for residents, with 144 (93%) agreeing or strongly agreeing that the design was convenient for them and that they could access everything they wanted in their property and manage the doors (N=155). However, 116 residents (74%) disagreed or strongly disagreed with the statement 'I have enough space for storage' (N=158). Some residents have addressed this issue by converting other areas of their homes, such as a spare room or part of a bathroom, to storage areas. For other residents, particularly those living in smaller one-bedroom properties, storage issues may mean that there is less freedom of movement in rooms and passageways.

'*Public and commercial rental housing is clean, well-maintained and safe*'. The redevelopment of DGV was completed in 2009 and involved replacing old bungalows with 326 new properties. All properties in the village were, at most, just under four years old at the point when fieldwork ended. The 2009 survey data show that residents were generally satisfied with their properties' condition. There were 143 residents (92%) who agreed or strongly agreed with the statement 'I am generally happy with the condition of the house/flat' (N=155). Moreover, a high proportion of residents (144; 94%) agreed or strongly agreed that they felt safe from burglary or attack when inside their properties (N=154).

Social environment: social participation

'*Venues for events and activities are conveniently located, accessible, well-lit and easily reached by public transport*'. Activities at DGV take place in centrally located venues, such as the village hall and activity room. As noted earlier, for most residents these locations are convenient. However, some residents with mobility problems have reported difficulties in getting to and from activities. Residents can ask for a member of the support team to accompany them, but this incurs additional financial cost and does not suit some residents, including Vera Poole:

Unfortunately I have become less mobile and not able to walk far since moving here, so I am unable to join in any activity unless I pay for a carer to take me in a wheelchair.

'*Activities and attractions are affordable, with no hidden or additional participation costs*'. Some activities and events at DGV do incur costs, although these are usually kept quite low for regular village events. Residents who pay to become members of the DGV Residents' Association are entitled

to discounted prices for some events. When asked in the 2009 survey about the affordability of taking part in social activities such as trips, outings and classes, 85 residents (59%) stated that they could 'pay without problem', 48 residents (33%) said that they could 'just about afford' these activities, and 11 residents (8%) stated that they 'struggle to afford' them (N=144). These figures indicate that participation in activities and social events is not easily affordable for quite a large proportion of residents.

'*A wide variety of activities is offered to appeal to a diverse population of older people*'. A wide range of activities is available at DGV, from more physically active options like keep-fit, swimming and bowls, to activities with a more creative focus such as art and craft classes and music appreciation. In the 2009 survey, residents were asked whether they attended any of 16 activities in DGV, such as dancing or bingo; 149 residents (96%) stated that they attended one or more of these activities 'sometimes' or 'often' (N=155). Levels of participation in activities outside DGV, including shopping trips by coach, were similar, with 152 residents (98%) attending one or more activities 'sometimes' or 'often' (N=154). Most activities within DGV are run by residents, thereby reflecting their interests. Although some activities can take place with low levels of participation, finding enough residents with a common interest to engage in activities that require a bigger financial outlay, such as paying for a Tai Chi instructor or art teacher, has proved challenging.

'*There is consistent outreach to include people at risk of social isolation*'. Although a group of residents have established a 'good neighbours' scheme to provide support and advice to village residents, DGV lacks a formal strategy for determining how residents at risk of social isolation might best be identified and supported. The fact that DGV is designed for 'independent living' is used frequently as justification for not addressing this issue. For example, when talking about what strategies could be implemented to try to offer better support to residents who are lonely, reluctant to ask for help, or unable to get to activities or events because of mobility or confidence issues, one staff member said:

Because they live independently, don't they. We can't go and knock on their door and say, 'oh I've just been informed you don't come out' or, you know, 'all right, come on I'm going to take you down to the shop' . . . it's independent living. It is [their] front door at the end of the day.

As this quotation illustrates, there is a perception that only two strategies are available – to place all responsibility on residents to ask for support, or to take an approach at the other extreme that would not be welcomed by residents.

Social environment: civic participation and employment

'*A range of flexible options for older volunteers is available, with training, recognition, guidance and compensation for personal costs*'. In the 2009 survey, residents were asked if they had worked as a volunteer in the last two years. Forty-nine residents (32%) answered 'yes' (N = 154). Some residents had also decided to improve or maintain the flowerbeds in communal areas near their properties. Others had set up or were running activities in the village, such as a walking club and assisted swimming sessions. While these data do not provide information about the range of options for older volunteers, or the training, recognition, guidance, compensation and flexibility of these options, they do indicate that there are at least some voluntary roles available that have been taken up by residents.

Supportive infrastructure: transportation

'*Public transportation is reliable and frequent, including at night and on weekends and holidays*'. Some residents reported that the public bus service that runs to and from DGV meets their needs. For example, Sheila Peterson wrote: 'Even though I do not drive, there is a bus that comes right into the Village three times a day and goes into Uxbridge where I can do all the necessary shopping, banking, *etc.*' However, many residents felt that the service was too infrequent and did not run late enough in the afternoon or evenings. Norah Morris commented:

We have only one bus that takes us to Uxbridge, 3 times only per day, last one 1.20 lunch time, so once you are here one feels so trapped.

'*Specialized transportation is available for disabled people*'. A wheelchair-friendly 'dial-a-ride' service is operated locally by the district council, which 12 residents (8%) reported using when asked in the 2009 survey (N = 156).

'*A voluntary transport service is available where public transportation is too limited*'. The DGV Residents' Association organises a weekly coach trip to a nearby town and many residents use the service regularly to do their weekly shopping. The coach service is supported by the 'buggy service' – a golf buggy driven by a DGV resident on Fridays to transport residents from their properties to the village centre where the bus stops, and to take them back again with their shopping when the bus returns. Four residents (3%) reported using the buggy service in the 2009 survey (N = 156), although the research team are aware that other regular users of the service did not participate in the survey.

'*Parking and drop-off areas are safe, sufficient in number and conveniently located*'. Facilities such as the gym, swimming pool, and café bar at DGV are open to members of the public. Many residents have expressed concerns over the adequacy of parking facilities in the village. As discussed earlier, limited parking space often leads to non-resident visitors parking outside designated parking areas. Residents requiring disabled parking spaces have reported that there are few of these in the village. Moreover, residents who are leaseholders have individual allocated parking spaces, but residents who rent their properties do not. This is an issue for both leaseholders and renters:

Parking is a No. 1. headache. I've a leasehold property with allocated parking space but I find it very frustrating as most times visitors of rented properties use my space. They clearly do not obey the reserved signs. (Carol Stephenson)

No parking facilities where I am, all spaces reserved for certain properties (owners), as I am rental it's very hard to park anywhere near. (Sandra Cope)

Supportive infrastructure: community, support and (health) services

'*An adequate range of health and community support services is offered for promoting, maintaining and restoring health*'. In 2009, 89 residents (58%) felt that more support would be available at DGV if they needed it in the future. However, 31 residents (20%) did not think that more support would be available, and 34 residents (22%) were unsure (N=154). Regardless of whether or not adequate support would in fact be available, these figures show that just under half of residents participating in the survey were not confident that support would be adequate for their future needs.

'*Home care services include health and personal care and housekeeping*'. DGV offers a range of support including domestic help such as cleaning, laundry, shopping, preparing light meals, and personal care including washing and bathing and administering medication. In 2009, 22 residents (14%) were receiving housekeeping support from DGV staff and 25 residents (16%) were receiving help with housekeeping from 'others' who were not family or DGV staff, such as outside agencies or friends (N=153). Only three residents reported receiving support with managing medicines. Eight residents (5%) were receiving help from DGV staff to have a bath or shower and five residents (3%) were receiving help with foot care from DGV staff (N=153). Fifty-seven residents (38%) reported receiving help with foot care from 'others' (N=152). Three residents were receiving support with other personal care, such as dressing or eating, from DGV staff (N=153), and five residents were receiving help from DGV staff or 'others' with preparation or provision of meals (N=153).

'*Health and social services are conveniently located and accessible by all means of transport*'. DGV has two GP practices on site and most residents (145; 94%) are registered with one of these practices (N=155). There were 152 residents (98%) who reported that it was 'very easy' or 'quite easy' to get to their GP practice (N=155), suggesting that GP services are conveniently located and easily accessible for most residents. Other services are located outside DGV and some, therefore, appear to be less convenient and accessible. Fifty-four residents (92%) reported that it was 'quite easy' or 'very easy' to get to a chiropodist using their usual forms of transport (N=59) and 115 residents (87%) said it was 'quite easy' or 'very easy' to get to a dentist (N=132). These figures were similar for getting to a pharmacy or optician. However, 40 residents (28%) stated that it would be 'very difficult' or 'quite difficult' to get to hospital using their usual forms of transport (N=144).

'*All staff are respectful, helpful and trained to serve older people*'. Reported levels of satisfaction with help from staff at DGV were relatively high. In 2009, 112 residents (76%) reported being 'satisfied' or 'very satisfied' with the help that they had received from village staff. Twenty (14%) were 'dissatisfied' or 'very dissatisfied' and 15 (10%) were 'neither satisfied nor dissatisfied' (N=147). However, the survey completed by 12 DGV staff in 2010 found that although staff had undergone various types of training, none listed any training or qualifications related to ageing or to working with older people. Focus groups conducted with staff also revealed that while some understood that older people are not a homogeneous group, others tended to make generalisations and express negative and stereotypical views about ageing and older people.

Respect and social inclusion

'*Older people are regularly consulted by public, voluntary and commercial services on how to serve them better*'. Residents' Forum meetings, chaired by a DGV staff member, were held regularly in the village as an opportunity for residents to ask questions or discuss issues. These meetings were usually well attended by residents and, of the residents who participated in the survey in 2009, 103 (67%) stated that they attended 'sometimes' or 'often' (N=154). However, residents have often reported to members of the research team that they do not feel that DGV staff listen to them, and 52 residents (33%) agreed or strongly agreed with the statement 'Residents have little say in how the village is run' (N=156).

'*A basic, effective communication system reaches community residents of all ages*'. In addition to the oral communication at Residents' Forum

meetings, meeting notes are typed and delivered to each resident's home. Other information is posted on noticeboards in the village centre. However, while some residents have made their own informal arrangements with friends or neighbours, no formal system is in place to provide information in a different format for people who have visual impairments, limited mobility, or other issues that affect their ability physically to get to noticeboards and/ or to read information.

'There is wide public access to computers and the Internet, at no or minimal charge, in public places such as government offices, community centres and libraries'. DGV has several computers with internet access available in the library, which can be used free of charge by all residents.

Discussion and conclusions

Our data suggest that a purpose-built retirement community like DGV is a good candidate to become an age-friendly community. Using the definition of an age-friendly community as one that 'is engaged in a strategic and ongoing process to facilitate active ageing by optimising the community's physical and social environment and its supporting infrastructure', a retirement community such as DGV cannot be deemed age-friendly until it has committed to, and is engaged in, this strategic and ongoing process. In our view, age-friendliness cannot occur by default or fortuitously, but requires a conscious decision to be made by the community. That said, the philosophy behind the redevelopment of DGV clearly accords with the idea of optimising the environment and services to facilitate active ageing, and residents in general are highly satisfied with the village overall. However, the option for residents to age in place may need to be addressed. The design of accommodation, facilities and the external environment require careful consideration as they are central to the concept of ageing in place, and especially so given the increasing prevalence of cognitive impairments and dementia among the residents of retirement villages (Evans 2009). In addition, the findings suggest that fewer residents perceived that DGV could support them in ageing in place in 2009 than in 2007. Linked to this, although DGV offers a range of support services, many residents expressed a lack of confidence in the ability of these services to support them in the future. This uncertainty is likely to have contributed to residents' beliefs about the ability of DGV to support them in ageing in place. While DGV offers 24-hour emergency support, this does not extend to 24-hour care, meaning that residents requiring high levels of support and care would have to move to a more specialised development. In addition, more work would

be needed to address the age-segregated nature of life in DGV. While living in an age-segregated environment does not inherently challenge the idea of age-friendliness, the WHO concept of an age-friendly environment does include the integration of different generations, for example at community-wide events and in schools.

In terms of the physical environment, DGV was perceived as clean and pleasant, and pavements were well-maintained. However, this is another dimension where the village should be considered in the context of the wider community, as issues relating to pavements in the area immediately adjoining the village impact negatively on residents' lives. This finding is also highlighted in studies which demonstrate that older people's quality of life can be considerably improved by good street design (*e.g.* Newton *et al.* 2010). For many checklist items, such as that relating to the safety of areas where housing is located, older people's perceptions should be treated as equally important as more factual data. In contrast to some of the findings from similar studies (Barnes *et al.* 2012; Bernard *et al.* 2004, 2007), most residents were happy with the temperature of their properties. The fact that properties were designed to meet Lifetime Homes Standards (DCLG 2008) may have been a factor contributing to the high levels of satisfaction residents expressed with the space and design of their properties. However, designing to these standards did not seem to have provided adequate storage space within residents' homes, potentially causing problems with freedom of movement within properties. Additional checklist items concerning design issues that have also repeatedly been raised in other studies, such as the adequacy of storage space, outdoor space attached to individual properties, the ease of parking nearby, and overall levels of satisfaction with the property (Barnes *et al.* 2012; Bernard *et al.* 2007; Croucher and Bevan 2010; Evans and Means 2007; Inclusive Design for Getting Outdoors 2010), would be helpful in a retirement community context.

The convenient location of social activities was a positive feature for most residents. However, as has been documented in other studies (*e.g.* Barnes *et al.* 2012), accessibility was still a problem for some, demonstrating that location alone is not enough to facilitate social participation. Bernard *et al.* (2004, 2007) and Evans and Means (2007) reported that some activities within the villages incurred charges. At DGV, although these charges were affordable for many residents, a significant minority indicated that they did not find it easy to pay for social activities and events. This may not only have implications for participation levels, but could also be a particular issue in a mixed-tenure community like DGV, where social participation could become an option only for those who could afford to take part. In addition, while communities like DGV may offer a wide range of activities, for these to be viable they will often have to be chosen to meet the needs and preferences

of majorities, and the ability to cater for diverse interests will always be limited to some extent. 'Consistent outreach to include people at risk of social isolation' (WHO, 2007*b*: 3) is a key area that needs to be addressed strategically within communities like DGV. Greater understanding is needed that this type of 'outreach' need not equate to unwelcome intrusions into older people's lives.

DGV is serviced by public transport, but the timing and frequency of buses limits residents' ability to leave the village, especially in the evenings and at weekends. This issue has been raised in previous research (Evans and Means 2007; Evans and Vallelly 2007), and is particularly an issue for communities that are not located within easy walking distance of a larger town, and for older people without car access. DGV provides some additional transport to improve participation in off-site activities but does not offer services that can cater for individual needs, such as transporting residents to hospital appointments or other commitments outside DGV. Furthermore, parking is insufficient for residents who do have cars, and particularly those who rent their properties. While the services on-site at DGV were generally accessible to residents, a checklist item relating to the accessibility of local shops, supermarkets, activities and cash points outside the village would be important in the context of a retirement community to indicate the convenience of its location in terms of the wider community.

Communities such as DGV generally have formal mechanisms for engaging with residents, such as a Residents' Forum. The findings from DGV suggest that while most residents take the opportunity to participate in this type of meeting, some perceive that the level of engagement with residents by staff is sometimes superficial, and little attempt is made to engage with village residents who are unable to make use of standard communication mechanisms. A checklist statement about whether older people perceive their community to be a good place to grow old in would give some indication of the extent to which they feel respected and included/excluded in their community. Given its purpose as a development for older people, it is also perhaps surprising that DGV staff who we surveyed had not undergone any specific training related to ageing or to working with older people.

Our exploration of existing studies of purpose-built retirement communities is necessarily limited by the fact that such studies have not yet evolved with the aim of exploring the relative age-friendliness of particular community settings. In this respect, further research is needed that takes a more systematic approach to exploring such communities' age-friendliness across a range of domains.

Given the expanding scope of age-friendly initiatives and approaches, there is a need to re-examine the concept of age-friendliness itself. In much

research there is too great a focus on age-friendliness as a status that can be achieved by completing a number of specified tasks, rather than an on-going, strategic process. Previously used definitions of age-friendly communities have either focused on city environments or have not been adequate to reflect the existence of, or potential for, a broader application of age-friendly approaches to different types of environment. The definition used in this article builds on the emerging literature around the diversity of age-friendly communities, and emphasises that age-friendliness represents being part of an ongoing process of improvement rather than focusing on specific approaches or characteristics. In this respect, communities that have pioneered age-friendly approaches, as well as those that are only just beginning to consider the needs of their ageing populations, are equally challenged to become ever more age-friendly.

That said, it remains important for communities to set goals and priorities within this process, which is where the WHO (2007*a*, 2007*b*) framework can be helpful as a list of essential features. Exploring some of the checklist items in the context of a retirement community has demonstrated that these broad characteristics can be used in non-city environments. This article also highlights the importance of considering older people's perceptions as well as factual information when assessing any environment against the age-friendly checklist, for example neighbourhood safety, as these may or may not match each other. However, as has been suggested for rural communities (Federal/Provincial/Territorial Ministers Responsible for Seniors 2009), a checklist of essential features for age-friendly retirement communities could be developed by adapting the WHO checklist, for example by adding items about perceptions of the adequacy of outdoor space attached to individual properties and drawing on other guidelines for evaluating the design of housing for older people (Lewis *et al.* 2010).

Finally, given the increasing prominence of the age-friendly agenda and the growing focus on age-friendliness in non-city environments, it is crucial for researchers, policy makers and practitioners to engage with the conceptual, as well as the practical, aspects of age-friendliness at a community level. Communities need to ensure that their own age-friendliness is evaluated in terms of the extent to which the aim of facilitating active ageing is achieved, rather than solely assessing progress against a list of predetermined features. If developers and policy makers are to continue advocating age-segregated environments as models of housing and care for older people, more clarity is required around how such developments can better fit with the age-friendly agenda, particularly in terms of their capacity to support ageing in place, the accessibility of amenities and activities in the wider neighbourhood, opportunities for intergenerational interactions, and the training of staff to work with older

people. Furthermore, retirement communities wishing to become age-friendly would need genuine and explicit commitments from both staff and residents to engaging in the cycle of planning, implementing, evaluation and continual improvement to facilitate active ageing.

Acknowledgements

NOTES

1 A publican is a manager or owner of a public house, which sells alcohol for consumption on the premises.
2 Owing to a combination of paired and unpaired responses across the two time-points, formal statistical testing of the changes between 2007 and 2009 was not possible.

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