What do older people want from their environment to enable them to experience well-being in their later life?

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Presentation will address

- What is important to older people?
- Meaning of home in later life
- How environment and technology can enable or undermine the well-being that older people experience
- Future projects
## World: ageing population

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2000</th>
<th>2025</th>
<th>2050</th>
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<tbody>
<tr>
<td>60-65</td>
<td>187,004,545</td>
<td>362,199,763</td>
<td>512,760,236</td>
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<td>65-69</td>
<td>151,966,200</td>
<td>291,006,744</td>
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<td>70-74</td>
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<td>75-79</td>
<td>78,535,395</td>
<td>157,451,330</td>
<td>311,785,476</td>
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<td>80 +</td>
<td>70,112,462</td>
<td>174,363,615</td>
<td>470,254,749</td>
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International database: [http://www.census.gov/cgi-bin/ipc/idbagg](http://www.census.gov/cgi-bin/ipc/idbagg)
The UK population aged over 65 grew by 31 per cent, from 7.4 to 9.7 million, whilst the population aged under 16 declined by 19 per cent, from 14.2 to 11.5 million. Office for National Statistics, 2007

http://www.census.gov/cgi-bin/ipc/idbpyrs.pl?cty=UK&out=d&ymax=300&submit=Submit+Query
It’s not just about adding years to life

Older people want to *age in place, continue* with their *daily routines* and maintain their *independence* and *lifestyles* in a safe and effective manner in a way that contributes to their *well-being* and *quality of life*. 
Elements of well-being in later life

Nazroo, J; Greenwadl, I; Bajekal, M; Lewis, J. (2005) Ethnic inequalities in quality of life at older ages: Subjective and objective components, Swindon: ESRC
Older people strategies to promote and enhance well-being

- Resilience by maintaining community connections and relationships
- Keeping active
- Emotional coping
- Practical coping
- Spiritual coping

Moyle, W, Clarke, C, Gracia, N; Reed, J; Cook, G; Klein, B; Marais, S; and Richardson, E (2010) Older people maintaining well-being: an appreciative inquiry study in four countries. Journal of Nursing and Healthcare of Chronic Illness, vol 2(2), pp. 113-121
Living on a fixed income: Difficult decisions

- “I now only heat my living room to 18°C”
- “To manage my budget, I cut down 1 or 2 degrees on the thermostats to reduce my heating bill and this gives enough for shopping.”
- “I turn the radiators off on the rooms not in use and keep the thermostats down.”

Richardson, E. Brown, K. Lax, A (2008) Do we Eat or Do we Heat. (Avril Osborne project report, Generations Review)
“I’m terrified of falling. I live alone and I have had accidents in the past that led me to consider moving from the home that I love. I want to stay here, but I am terrified of falling.” (Dawson and Cook, 2008)
My own home is more than a mere building. It is

- My own home
- Staying near neighbours I know
- Social interaction
- My personal territory, private space
- Safety and security
- Familiarity – local environment
- Being independent
- Represents a lifetime of living, and achieving
- Cherished memories
- Tailored to my needs
- Embodiment of identity
- Representative of Past, present and future
- Source of control
- An embodiment of identity
Meaning of Home

- Experiential
- Physical
- Social
- Metaphysical

Deep attachment to home
Housing and care options are important determinants of whether an older person is enabled to age in a place of their own choice or proceeds up the escalator of care.
Ageing in place

- Neighbourhoods
- Life time housing/ decent home standards/ Housing adaptations
- Telecare
- Robotics

Considerable interest in the potential of assistive technologies to manage risk arising from problems associated with ageing (Audit Commission, 2004 – Assistive technology, independence and wellbeing, I&DeA, 2003; DoH 2005, Building telecare in England)
Lifetime neighbourhoods

Where transport, good shops, green spaces, decent toilets, and benches, are consciously planned for people of all ages and conditions in mind.

They promote community spirit and civic pride. Ecotowns are those that are designed to be lifetime neighbourhoods.
Smart retirement resorts – Sundale Garden Village, Nambour, Queensland
Adaptation and Handyman services
Led to the development of 100+ smart home systems since 2004 for the housing industry and private home owners.
Telecare in the UK

Definitions are developing, but inclusive of the following:

Telecare is the continuous, automatic and remote monitoring of real time emergencies and lifestyle changes over time in order to manage the risks associated with independent living.

Examples of devices:

Movement/non-movement sensors; Falls sensors; Fire/smoke alarms; Automatic lighting sensors; Food/water alarms; Fridge activity sensors; Window/door sensors; Carbon monoxide sensors; Bed/chair occupancy sensors; Temperature range sensors; Gas shut off devices; Medication reminder systems
460 telecare packages were introduced in Northumberland 2006 – 2009. The technology that was fitted to a particular dwelling was based on assessment of need and in negotiation with the service user, hence an individual had anything from a telephone support line to an extensive range of technologies fitted in their home.
Service users views on their life with telecare

- My own home
- Staying near neighbours I know
- Receiving a well organised service
- Secure in my own home
- Having a life-line
- Not having to worry
- Being independent
- Knowing mum is safe and having a life of my own
- Feeling good about myself
- Being in control
- A good back-up
- Tailored to my needs
- Like waving a magic Wand for us
- Being independent
Increases sense of safety and security to take risk

- “There are lots of additional things to the heat sensor that I have in the kitchen. They are not there to be intrusive. It’s like that thing that hidden on top of there. You forget that it’s there. It is there for your own protection.” ‘it makes me feel happier. I have my independence and I know that there’s somebody there, close by.’ (telecare service user)

- ‘it makes me feel happier. I have my independence and I know that there’s somebody there, close by.’ (telecare service user)
Provides an early warning system

“And I don’t that I would have been very happy with mum living on her own without some type of support - knowing that there wasn’t a system in place that would at least partially take over and give someone an indication that something wasn’t right. I think it’s very important to have this type of input. We were in the situation of living in with my mother and now she is happy, safe and able to live on her own. This means that we actually have a life as well now. And so that… I think that is the biggest benefit there’s been.”

(daughter of a telecare service user)
Reducing risk(s) associated with living alone: risk modification

- “It prompts me for my medication. When I get busy I just totally forget the meds........when they (community care services) cut back my carers there were 3/4 times when I completely forgot to take my meds and when my carers next came they found that there was Warfarin and stuff from the night before just left which I should have taken. So now I have my prompt.”

- “I get a call at night about 9.00pm to see if I’ve taken my medication. That’s smashing.”

(Telecare service user)

Provision of prompts and reminders that would otherwise not be available in the home environment.
To the future: Advanced robotics

Fraunhofer IPA

Care-O-bot 2

Hitachi's Emiew1

Hitachi's Emiew2

RI-MAN Humanoid robot
Care homes
What do residents want in their place in the home?

- to be a means of self-presentation
- to maintain connectedness
- for space to be functional and enable residents to do and to be
- to optimise social interaction and maintain relationships
- to having a space that enables them to enjoy and fulfil aspirations.
Self presentation: Creating behaviourally significant and meaningful space
Maintaining interests and engagement with the external world

“Can you see the birds?”
R: “Oh yes, do the plants attract the birds?”

“And the seed.”
R: “Oh I had not noticed that.”

“My carer, Mrs T. brings the seed and nuts. When the pigeons come they all go away.”

R: “There are half a dozen up there now.”

“There are certain times for feeding - about 3.30pm.”
A place to be - a haven for a private life within a public place

“On a Thursday night when my friend comes we watch the TV together, as she likes her Emmerdale and Who Wants To Be A Millionaire....... I like that one also. We chat over a glass of sherry, and she says oh you have won such and such, and I go alright and I have £500 - shall we half it. Get to the £1,000. That’s £500 each we’ve got. Silly old biddies. But it is a good programme.”
Increasing the functionality of space by:

- arranging items and furniture for access and ease of use
- altering the environment to increase independence
- varying behaviour to adapt to a relatively fixed environment
A stimulating environment
Environmental conditions – comfortable and supportive of community

- **Space**
  - Personal
  - Communal

- **Ambience**
  - ‘Listening environment’
  - ‘Visual environment’

- **Stimulating interaction**

- **Thermal control** *(Regulation 15 of the Health and Social Care Act 2008, outcome 10 a; Health, Safety and Welfare Regulations 1992)*
“Well I have lost a little bit of independence again, haven’t I? I am used to loosing a little bit every now and again. Now I have to ask somebody to push me back (from the front door to her room). Well before on the other carpet I could just wheel down (to the front of the home) and wheel back with about 5 minutes rest at the other end. I used to like to go down and collect any post like tapes and things that were down there for me in the mornings. And sometimes they are too busy to bring them up and I used to enjoy that because it was something that I could do for myself. But I can only manage one way. Never mind I will get used to it I suppose.”
Quality of life: promoting social interaction and cognitive stimulation

Connect for Care is a novel touch screen video-telephone system that has the potential to enable older people to communicate, express choice, empower them to execute decisions, maintain independence and experience social inclusion.
Advances in sensory devices and technological equipment

Parkplatz Seniorenzentrum - centrally located in Grafenau-Dätzingen - care unit with 51 care places for long term and respite care
Technological equipment

- IT-based care documentation
- Access control to resident's rooms and functional rooms, data adaptation through central PC-workplace
- Call system: light call, voice communication
- Monitoring of vital functions
- Fall sensors, sensor mats in and in front of the bed
- Activity and mobility control
- Communication terminals for seniors
- Internet cafe
- Homecare system
- Central control of lights, dimming, clouding, air conditioning, device security
Current projects recently funded

- ‘Models for Aging and Technological Solutions for Improving and Enhancing Quality of Life’ (MATSIQEL) network – EU FP7 Marie Curie Actions
  - Telecare usage and quality of life (TUQoL)
    - To examine service data from a cohort of service users who receive enhanced Telecare services
    - To generate quality of life data from a cohort of enhanced Telecare service users
Thank you for listening

Any questions

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