

HEALTH AND WELLBEING INNOVATION
COMMISSION INQUIRY:

Built Environment

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Introduction

ILC-UK'S Commission Inquiry on Health and Wellbeing Innovation, supported by Audley Group and EY, seeks to review the current evidence base of innovation in health and wellbeing, generate new research and thought leadership, critically explore the opportunities and barriers and set out a blueprint for future work in this area. The Commission Inquiry has been built around four evidence sessions, designed to reflect the range of settings for health and wellbeing innovation: retirement communities and care homes, the built environment, physical and mental health, and social connections (including social isolation and loneliness).

Our second Commission Inquiry session explored the current and future potential for innovation in the built environment. We believe that embracing and fostering innovation in health and wellbeing is imperative; the promotion of good health and wellbeing is not just clinical, but should also be embedded holistically within communities as part of everyday life.

The World Health Organisation (WHO) states that “the main action on social determinant of health... comes from outside the health sector”¹. The definition of health has been recognised over recent years to mean not just the absence of disease, but the interrelationship between

medical wellbeing, social wellbeing and psychological wellbeing, of which the built environment is a key element². Having a home that is accessible if you have physical impairments, a local environment that can encourage physical activity and a transport system that allows you to access services and maintain social connections are all important to a person's health and wellbeing³.

Throughout the session, three primary questions formed the basis of the line of inquiry:

- What does ‘good’ innovation look like in the built environment, where do we find it, and how is it characterised?
- How do we stimulate innovation in health and wellbeing within these sectors where there are limited or early stages of innovation?
- What resources underpin the development and diffusion of innovation, considering individual, state and industry responsibility?

In this short report, evidence is drawn primarily from the Commission Inquiry session and from a review of the relevant literature. Endnotes are enclosed for specific citations.

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Setting the scene

Definition: The built environment encompasses places and spaces created or modified by people. This includes buildings, parks and transportation systems.

As highlighted throughout the Commission Inquiry session, the consumer market has historically been slow to adapt to the changing demands of older people. Those aged 65 and over present a powerful market for the industry, with a largely untapped purchasing potential. We see under-consumption amongst older age brackets, despite the fact that many older people want to be more economically engaged in their environment. For example, based on previous estimates by ILC-UK from the English Longitudinal Study of Ageing (2014/15), approximately 60% of those aged 50+ eat out at least once a month, yet more than 40% of them would like to eat out more often⁴. This opportunity needs to be seized by private markets, and this report highlights key areas for this.

Meanwhile, the built environment spans many policy areas. These include transport, housing, social care, planning, public health and local government. As such, a Commission Inquiry such as this is needed to take an overall approach to where innovation is required and how can it be encouraged to improve the health and wellbeing of the population. At the outset, it can be helpful to outline a few of the key policies and frameworks relevant to this topic, such as:

- **National Planning Policy Framework:** This brought together all planning guidance and policies in England under one framework. It references the need for inclusive design for all developments “including individual buildings, public and private spaces and wider area development schemes”. Updates to the framework are currently being discussed.
- **Health and Social Care Act 2012:** Public health responsibility was transferred to local authorities. Health and Wellbeing Boards were established, which identify with local authorities the public health needs of all residents. Public health priorities include a focus on enabling older people to remain in their own homes for longer, remaining independent.
- **Housing White Paper 2017:** The Government announced a new statutory duty through the Neighbourhood Planning Bill to produce guidance for local planning authorities on how to meet housing needs of older and disabled people.
- **The Prime Minister’s Challenge on Dementia 2020:** This is a cross-governmental challenge, looking to improve the lives of people with dementia and their families. As part of this, more than 70 communities, ranging from towns to large cities, have committed to becoming dementia friendly, and many businesses including transport providers and leisure companies have pledged to respond to the needs of people with dementia.
- **Cities and Local Government Devolution Act 2016:** This Act was designed to introduce directly-elected mayors to combined local authorities in England and Wales. The granting of devolution deals ensured that the responsibility for several policy areas which fall under the remit of the built environment (including housing, transport, and planning) were devolved.
- **Bus Services Act 2017:** The Act introduces ‘enhanced partnerships’ to the transport sector in order to promote better partnerships working to strengthen arrangements, as well as introducing new franchising powers to support local decision-making. The Act also promotes the provision of information for bus passengers.

Housing

GOOD QUALITY, SUITABLE housing is important for all ages, with bad housing being associated with poorer health and wellbeing. People above retirement age who live in bad housing are a third more likely to have bad health compared to those in good housing, whilst 19% of older people in bad housing suffer from poor mental health, compared to 11% in good quality housing (defined by the English Housing Survey). Housing that is suitable and able to be adapted can also promote independence in the home as people age, reducing unplanned hospital admissions and enabling people to 'age in place'.

Currently, not enough attention is paid to the specific housing needs of older people. For example, less than 10% of the UK's local authorities have both an older people's housing planning policy and allocated development sites for such housing.⁵ Yet, as our population ages, it will be necessary for increasing proportions of the national housing stock to be adaptable and flexible, resulting in housing which is appropriate across the life course. Flexibility needs to be achieved in both new housing, and via adaptations to existing homes (discussed further below).

New housing in the UK is getting smaller, prompting concerns about its suitability; smaller properties often side-line important considerations such as having hallways which are large enough to accommodate a buggy, or a wheelchair.⁶ Meanwhile, Category 2 lifetime housing standards, which ensure that homes are accessible and adaptable, are not nationally mandated. Developers have a responsibility to ensure that homes are designed with the right space and layout to allow for the changing needs of the individual and family over time.

Moreover, in order to promote excellence in the sector, it is crucial that those working in both health & social care and in housing have an understanding of the implications of health needs on housing requirements (and vice versa). For example, the Alzheimer's Society has led the way in dementia-friendly housing design, through the Dementia-friendly Housing Charter which is aimed at planners, architects, landlords, developers, housing managers and handypersons. This is an important step in ensuring that cognitive disabilities and needs are taken

into account in housing development, not just physical accessibility issues. In addition, health and social care colleagues must also better recognise the importance of housing to health and wellbeing. Largely speaking, Sustainability and Transformation Plans focus on residential and nursing homes, but not private homes, thereby missing a crucial opportunity to help address one of the key wider determinants of health and wellbeing.

New technologies are broadening opportunities for the sector, for example as demonstrated by Legal & General's scheme to build thousands of modular homes using engineered cross-laminated timber and automation technology. It is claimed that this approach could reduce up to 50% of the on-site building time when compared to traditional techniques.⁷ 3D printing also provides many opportunities in this field, as highlighted by the Project Milestone case study below.

Future Homes Newcastle

(Registered as the Future Homes Alliance Community Interest Company on 6 April 2018)

ISSUES BEING ADDRESSED:

- There is a lack of appropriate housing in Newcastle which can flex to meet the homeowner's changing needs and requirements as they age
- This does not refer just to housing for older people, but adaptable housing which can service the homeowner throughout their life course.

DESCRIPTION OF INTERVENTION:

- Future Homes Newcastle is a two-year collaboration between stakeholders in the university, local government, business/industry and the social/community sector. The partnership is pairing research evidence with the community voice
- The objective is to leverage these resources, and digital innovation, in order to produce housing designs that make meaningful responses to real lives and demographic shift. This will be coupled by a focus on sustainability and environmental concerns

INPUTS:

- Grant aid from Homes England
- Funding from Karbon Homes, Legal & General, and Newcastle University Institute of Ageing
- Funding for a Future Homes virtual reality and augmented reality display on the Innovation trail of Great Exhibition of the North.

INTENDED OUTPUTS:

- New housing templates that fuse research excellence, business innovation, draw in community voice and deliver savings to the public purse
- A proposed development of 48 flexible dwellings ranging from 1-bed to 4-bed dwellings
- Real-world testing opportunities for industry and entrepreneurs and collaboration opportunities for proof of concept investigations
- Knowledge dissemination and a platform from which to share good practice
- Delivery of seven full day co-design workshops; three workshops with in-community health professionals; four workshops with older people; two workshops with parents of young children to develop the principles of the design.

Project Milestone, The Netherlands

ISSUES BEING ADDRESSED:

- The Netherlands is currently experiencing a shortage of bricklayers, but a need to build more new housing.

DESCRIPTION OF INTERVENTION:

- Project Milestone is seeing the 3D printing of houses to help address construction challenges
- It is hoped that five habitable homes will be built by 2019, in what would be one of the world's first experimentations with printed houses.

OUTCOMES/FINDINGS:

- As yet, it is too early to discuss outcomes or evidence, but it is anticipated that the use of 3D printing in the construction industry could cut costs and environmental damage by reducing the amount of cement that is used
- The use of 3D printing also means it could be possible to place wireless sensors directly into the properties' walls to allow a home to be fully "smart", thereby creating efficiencies further down the line.
- It may prove challenging to ensure that 3D printed homes are fully habitable (as has been the case with previous prototypes)
- Rolling the technology out at pace and scale is unlikely to be possible in the near future given the time it will take to develop the right infrastructure and skill-base
- 3D printed homes will only address the growing needs of our ageing population if designs allow for the aforementioned adaptability.

FUTURE HOMES WILL OFFER:

- Flexible internal space that can be changed to suit needs and preferences
- Fabric first approach and provision of renewable energies
- Rain water harvesting and grey water capture
- Micro allotments and vertical veg to encourage community building
- Equipping the dwellings with instruments to monitor environmental and building performance and, with appropriate consent, supportive technologies for frailer individuals.

Mansfield District Council Housing and Health Integration

ISSUES BEING ADDRESSED:

- Health and housing are two areas that are closely associated. In light of this, Mansfield Council decided to address these issues in a holistic way. This was part of Nottinghamshire's Sustainability and Transformation Plan (STP), one of the few STPs that includes housing as a specific theme.

DESCRIPTION OF INTERVENTION:

- Of the 215 new homes developed as part of the Local Authority's New Build programme, 159 have been built for older people, with the ambition to encourage older home owners to downsize.
- ASSIST (Advocacy, Sustainment, Supporting Independence and Safeguarding Team) offers a range of services that can support people to live independently in their homes. Some of the services involve a small charge. The areas of support include a 24-hour emergency response service, planned home visits, help with housekeeping and companionship and a handyman service.
- The council has also streamlined disabled adaptations processes to reduce delays, as well as investment in 'healthy homes grants' for older homeowners to remove hazards from their homes in order to avoid falls and unplanned hospital admissions.

OUTCOMES/FINDINGS:

- The new homes that were built attracted many 'downsizers', freeing up housing stock for larger families. The ASSIST scheme was independently evaluated by Nottingham Trent University Business School, and it was calculated that between July 2015 and April 2016 1,129 admissions and 5,078 bed days were saved, with savings to the NHS calculated at £1,371,060.
- However, many of these initiatives were funded by the Better Care Fund. Continued funding from central government into the Better Care Fund is not guaranteed, which could have an impact on the sustainability of the services.

Hogeweyk, The Netherlands

ISSUES BEING ADDRESSED:

- Care homes designed to be suitable for people with dementia can often be overtly medicalised. This is not always best for a person with dementia, who may be more at ease in a familiar environment and could become nervous or distressed in a distinctly institutionalised setting.

DESCRIPTION OF INTERVENTION:

- The Hogeweyk is part of the Hogewey care centre in The Netherlands. In Dutch, a weyk or wijk means a group of houses, similar to a village. It is a specially designed village with 23 houses for 152 people living with dementia. Seven different 'lifestyles' or environments are offered, to suit different people's preferences and life experiences. Nursing facilities and care are available throughout.
- All staff and volunteers are specifically dementia-trained, but join in with roles in the community e.g. as a cashier in the supermarket.
- The residents are active participants in the community and manage their own households, with substantial support from a team of staff. They are able to both remain physically and mentally active. There is a supermarket where residents can shop, a park, a restaurant, bar and theatre. The idea is to help people with dementia live well and safely, in an environment in which they feel comfortable.
- The on-site facilities can also be used by residents from surrounding neighbourhoods, meaning that the environment is not exclusionary.

OUTCOMES/FINDINGS:

- Between 1993 and 2008, after the small group residential structure was adopted, residents were found to have a reduced need for continence materials and sleeping pills, showed lower levels of behaviour that challenges and almost a complete lack of need for ground food.⁸
- Vivium Care Group, who run Hogeweyk, carry out an annual client satisfaction surveys. In 2010, they reported that the average score for Hogeweyk was 9.1 out of 10, compared with a nationwide average of 7.5.⁹
- However, some critics dislike the concept, suggesting that residents are being misled, or arguing that all communities should become dementia-friendly, rather than being the reserve of specialist villages.

Home adaptations and inclusive design

IT IS ESTIMATED that 72% of retired people own their home, with 18% of retired households living in socially rented accommodation. Whilst relatively few older people currently privately rent, this is likely to change in the coming years, given that the proportion of properties privately rented has rapidly increased in recent years, rising from around 9% in 2000 to 19% by 2014.¹⁰

Meanwhile, it is estimated that 80% of the housing that will be available in 2050 has already been built, hence a need to focus on home adaptations within the existing housing stock.¹¹ A person's home should be a place of comfort, safety, enjoyment and self-expression for everyone, no matter their age. Older people have preferences over design, style and functionality, as much as a younger person, and this presents an opportunity for the consumer market to cater to.

Given the need to make spaces adaptable to changing needs as people age, there is a substantial market for home adaptations. Criticisms have been levelled about the suitability of this market and, in particular, the desirability of products and adaptations being designed for older consumers. This is reflected in uptake figures for home adaptations. For example, less than half of those aged over 50 who have a limitation in an Activity of Daily Living (ADL) live in homes with any health-related adaptations.¹²

Lifestyle changes and home adaptations can provoke fear or worry for some older people, who may view modifying their home as a manifestation of their own physical or mental decline. For older private renters, concerns about discussing modifications with landlords may also be off-putting and worrying. As a society, we need to change our rhetoric to highlight the positive impact of planning for later life, and to emphasise that effective home modification can lead to an increased likelihood of being able to 'age in place' for longer.

Designs, therefore, need to fit with this rhetoric, and become more stylish and desirable if we are to see adequate forward planning. Designs specifically associated with ageing or with disability tend not to be popular on the market. In order to cater effectively for older consumers,

we need to stimulate the private market so that products are made available by recognisable brands, which are not solely associated with ageing. This needs to be coupled with effective advertising. Designs should not focus just on the physical accessibility or usability of a product, but also on intuitive designs which are simple to use for all consumers, including those who may have a cognitive impairment.

Personal budgets (PBs), Personal health budgets (PHBs) and Integrated personal budgets (IPBs) offer valuable opportunities for those who meet eligibility criteria to fund elements of their own built environment, including home adaptations and inclusively-designed products, if these support outcomes identified during the care planning process.¹³ The adoption of Direct Payments (DPs) allows individual to exercise choice and control over the products and services paid for, therefore highlighting again the importance of ensuring that designs are attractive for the consumer.

Moreover, rather than designing in a way that is condition-specific (e.g. for dementia), it could be better to think about inclusive design, noting that many adaptations which benefit people with dementia can also serve both the general population, and those with other specific needs. For example, a bathroom designed to be suitable for someone with dementia could also be highly appropriate for someone with a small baby. By promoting inclusive design options, designs not only achieve the needs of older people but also better cater for all ages. For example, designs mass-produced in budget hotels can provide inspiration for creating functional and accessible bathroom designs in small spaces within homes. Oxo has been a world-leader in creating inclusively-designed household utensils which have attractive designs and are subsequently used by individuals and households of all ages, whilst tablets and other mobile devices have championed intuitive use and enabled communication for all ages.

Looking to the future, 'Alexa' and other voice-controlled devices and technologies promote ease of use and will therefore increasingly cater to all ages and groups.

Moreover, it is anticipated that driverless cars will also have appeal across the generations; they will offer greater freedom to ageing adults, but the smart design and stylish looks of cars such as those designed by Tesla make them attractive to all age groups.

Information and advice services for older people looking to adapt their homes have declined in recent years, with the closure of many Home Improvement Agencies

due to local authority budget cuts. The private market needs to step up to the plate and increasingly adopt the role of not only the provider but also the adviser. For example, shop-floor staff should receive dementia training and be trained to understand how to cater to older people.

HFT Smart House

ISSUES BEING ADDRESSED:

- Vulnerable groups can be better supported by technology to live well in their own homes

DESCRIPTION OF INTERVENTION:

- HFT is a national charity providing services for people with learning disabilities
- HFT Virtual Smart House was developed primarily to help those with dementia, or other vulnerable groups. It brings together tens of technologies which showcase inclusive design and home adaptations, though it can also be used by people living with a learning disability.
- The HFT Smart House is a personalised technology system which brings together a range of gadgets designed to help vulnerable groups to live better, including:
 - A finger print lock which uses a finger scan instead of a key
 - A panic alarm which can be set off when assistance is required
 - A video entry with a handset, which allows a person to see who is at their door
 - Door sensors, which raise the alarm if a door has been opened
 - An induction hob, which heats up but it is cool when touched, a design which could be useful for someone with dementia but also for families with small children.
 - Touch lamps
 - A bed occupying sensor which raises an alert via the Lifeline or Care Assist if the person has got out of bed and not returned within a pre-set time. The sensor can also automatically switch a lamp on
 - A flood detector, which raises an alert via the Lifeline or Care Assist if a flood is detected
 - PivoteII Medication Dispenser, which reminds the person to take their medication and only allows them to access the correct dose. Again, can alert via the Lifeline or Care Assist if the device has not been accessed.

OUTCOMES/FINDINGS:

- The HFT Virtual Smart House website provides advice and links to suppliers in a simple and approachable way. It pools together a range of different products, from which an individual could buy one or several, depending on their needs.
- The project won the award for Best Use of Technology at the Laing & Buisson Independent Healthcare Awards in 2010.
- However, an individual still has to buy the products themselves, which can be expensive.
- Additionally, some of the products might be difficult to install without assistance.

Transport and mobility

AS A NATION, our travel habits are changing, with people travelling less than in previous years, both in terms of number of trips and total miles travelled. The average number of trips per person fell 13% between 2002 and 2016. During the same period, the average amount of miles travelled per person fell by 10%.¹⁴

Travel patterns also tend to change with age. Older people are now more mobile than ever before, largely as a result of increased driving rates. In terms of total miles travelled each year, 50-59-year olds actually travel more than other age groups, travelling 30% more than the average across all ages.¹⁵ 60-69-year olds also travel more miles than the average.¹⁶ For these age groups, innovation should be focussed not on their inability to travel, but to ensure that travel is cost-efficient, suitable and convenient.

Being mobile in later life is linked to positive health and wellbeing, for example acting as a protective factor against social isolation and loneliness.¹⁷ It is therefore very important that older people are supported to remain mobile. Crucial to this is supporting older people to transition from driving to other modes of transport, so that they are prepared for if/when they need to, or choose to, give up driving. After the age of 70, transport use in terms of total miles travelled and frequency dramatically declines, with this age group only travelling 64% of the average total miles across all ages. The purpose of travel also changes, with this age group more likely to travel to go shopping or visit friends.¹⁸

In an age of hyper-mobility, with the decline of the high street and the closure of many local services, older people often serve to lose the most. This is of course of particular concern in rural areas, and the literature reflects this. An appreciation of where people live is needed, in order to concentrate new practices and innovations in the built environment where they are most needed. There is an increasing urban/rural divide in terms of the average age of population. In small towns and rural areas, approximately 50% of the population are over 50, with this proportion projected to increase over the next two decades.¹⁹

The populations of cities are, on average, younger. However, it is also important to note that cities will increasingly not just be for the young, with the fastest growing age group in cities projected to be those aged 70 and over.²⁰ Meanwhile, commuter towns, designed primarily around the car and frequently devoid of many amenities and services, also present specific issues. The age profile of these places has an impact on built environment design, such as reliance on cars as transportation in rural areas and the provision of services in areas of different population density.

Promisingly, transport innovation has tended to focus on low-tech, bottom-up and evidence-based solutions. This is important, given the value which can be derived from integrating older people into transport planning, recognising their useful role as potential innovators and collaborators. However, it can be argued that there has been too much of a community transport planning focus on the 'deficit' or 'crisis' model of older people's travel: whilst quite a lot of innovation has catered to practical elements of mobility (e.g. attending a doctor's appointment, grocery shopping etc), there are two further levels of need which are not frequently addressed. These are:

- Mobility linked to independence, status, identity (and particularly how this is impacted after giving up driving)
- Staying connected via discretionary journeys (such as to visit green spaces, the seaside, the mountains and so on. Again, this can be negatively affected by giving up driving).

Car Free Me, Australia

ISSUES BEING ADDRESSED:

- Older people often need support to help them transition from driving to using public transport.

DESCRIPTION OF INTERVENTION:

- Carfreeme.au is an Australian website which encourages older people to stay active after they stop driving.
- The programme offers six-week, workshop style, small group sessions facilitated by a professional Car Free Me coach. Each weekly session is designed to support participants to become car free, and the sessions are personalised to help older people to meet their personal goals.
- Sessions are supportive and help older people to connect with likeminded individuals.

OUTCOMES/FINDINGS:

- Feedback from a 55-person survey showed overall satisfaction with the program, and content analysis identified three areas that were highlighted as particularly useful: Finding alternative means: transport and service options, Planning with more wisdom: thinking about driving cessation, and Being with people: sharing experiences with peers.²¹

Mobility as a Service, Helsinki

ISSUES BEING ADDRESSED:

- Mobility as a service is a concept of moving away from personally-owned vehicles to mobility solutions that are consumed as a service, either through public transport or shared ownership. It is aimed at reducing congestion and air pollution, and offering a range of mobility solutions that fit an individual's needs and requirements.

DESCRIPTION OF INTERVENTION:

- In Helsinki, users of the Whim app can sign up to a price plan that is suited to their needs.
- For 48 Euro a month, a user can enjoy unlimited local public transport, use taxis in the city centre for 10 Euro per ride, hire a car for 49 Euro per day and enjoy unlimited 30-minute journeys using a city bike. The 'unlimited' option, at 499 Euro per month, allows unlimited public transport trips, unlimited taxis journeys in the city centre and unlimited car and city bike hire.

OUTCOMES/FINDINGS:

- A study on users of the app in Helsinki found that the proportion of journeys made by the app users by public transport increased from 48% to 74%, and car journeys halved from 40% to 20%.²²

Renfrewshire Virtual Reality Pilot, Scotland

ISSUES BEING ADDRESSED:

- As aforementioned, opportunities for older people (in particular those who no longer drive) to take discretionary journeys (e.g. to enjoy green spaces) are few and far between
- For some older people, using public transport may be difficult (either through lack of availability or due to physical disabilities), and taxis may be cost prohibitive
- For older people who may find it difficult to be physically transported, digital opportunities can help to address health and wellbeing needs associated with travel

DESCRIPTION OF INTERVENTION:

- Funding has been made available by Renfrewshire Council's Culture, Heritage and Events (CHE) Fund, for a 6-month pilot so that older people who are members of Paisley-based Roar Connections for Life (a preventative health and care provider) can access virtual reality.²³
- The programme is being tested in the community, with befrienders visiting older people in their own home and using virtual reality headsets to allow individuals to engage with cultural events and activities which they might otherwise not be able to attend.
- Local sites of interest are filmed and then shared through the headset, for example allowing an older person to 'visit' Paisley Museum and have a narrated tour.
- The headsets can also make other activities possible e.g. attending a theatre performance.
- Visiting personal places such as an old childhood home could also be possible through the headsets, or indeed it could be possible to visit far-flung destination such as areas of outstanding natural beauty.

OUTCOMES/FINDINGS:

- No outcomes or findings have yet been made publicly available, but a similar programme in the USA by Rendever has quoted a 40% increase in care home resident happiness as a result of Rendever technology.²⁴

- However, the concept of mobility as a service is still in its infancy. The development of autonomous vehicles is expected to add to the efficiency of the service.

- However, a viable business model for how this system would work in UK cities has yet to be established, although Whim are launching a service in the West Midlands.

- It is difficult to see how rural areas, that often face the biggest challenges in terms of transport provision, would benefit from mobility as a service in its current form.

Town planning and public spaces

WE NEED PUBLIC SPACES which can be used and enjoyed by people of all ages, as highlighted by the WHO's Age-friendly World initiative, dedicated to supporting the inclusion of older people in cities and communities across the world.²⁵ The design of these spaces must take into account the specific needs of our ageing population, and clever design can help to promote improved health and wellbeing for older people. For example, planning public walkways so that there are plenty of benches could help to promote older people walking. Ensuring effective, straight-forward signposting can also help to promote active travel. Integrating meeting spaces which can be accessed on foot into the design of public spaces (e.g. benches and places to play games) not only promotes physical activity but can also offer opportunities for social connection and reducing loneliness. Parks also offer many opportunities for physical exercise and frequently include jogging routes or spaces for strength-training. Incorporating information about exercise routines and options (geared for older people) into signage could also prove simple and effective.

We need good planning, good design and *good maintenance* of public spaces. The latter is particularly important to note given recent local authority cuts. Public parks are a good example of this. There are 27,000 parks in England, with 37 million regular users, cutting across all ages and backgrounds. Investment in local space is critical and the impact of austerity on green spaces is keenly felt by older people.²⁶ For example, as highlighted by the Joseph Rowntree Foundation, whilst Councils have generally protected major, central parks from cuts, this has not consistently been the case for smaller parks and playgrounds. JRF's report refers to the *'combination of seasonal grass cutting and increased amounts of rubbish and dog mess [which] has meant a drop in the standard of cleanliness. Further, a lack of local wardens to monitor spaces has led to reports of 'gangs of young people' congregating in these spaces to drink and smoke, leaving residents feeling threatened.'* Whilst parks have been receiving funding from the Big Lottery and English Heritage for the past two decades, more can be done to maximise their value.

It is also important to note concerns about the privatisation of public spaces. Recent examples include the installation of a Go Ape site in Battersea Park and the Winter Wonderland seasonal use of part of Hyde Park.²⁷ This privatisation offers much-needed cash for local authorities, but these attractions can be costly to use and they impinge on public space which had previously been free for all. Likewise, fees for classes held in parks (from new mum's groups to tai chi classes and park runs) are also a threat to more financially disadvantaged park-users of all ages who could otherwise benefit from the health and wellbeing opportunities. Feedback from a 2017 Government consultation on preserving the free use of public parks for park runs is currently being analysed and it would be encouraging to see local authorities mandated to keep running fee-free.²⁸ Meanwhile, a 2012 survey (with responses from 354 local authorities) undertaken by Radio 4's You and Yours found that more than 40% of parks charged personal trainers a fee to run exercise sessions in their parks.²⁹ In an age of increasing privatisation of public land, older people are set to lose out substantially.

Moreover, planning departments have traditionally been poor at measurement and evaluation, with an over-reliance on measuring outputs. Some innovations (detailed below) have placed a greater degree of focus on understanding the social benefits of public spaces. We need to avoid focussing on outputs alone. Some innovations focus on encouraging co-production of services and integration of older people's perceptions of their local areas in order to inform design and delivery. One example is the Older People's External Residential Assessment Tool (OPERAT), which is a participatory tool designed to allow older people to assess the suitability of their local environment. The idea is that the tool could be used to help plan local areas which are age-friendly, and also as a lobbying tool to place pressure on under-performing areas.

NHS England's Healthy New Towns Programme

ISSUES BEING ADDRESSED:

- The English health and care system faces several significant challenges in the twenty-first century, including obesity, dementia and community cohesion
- The Healthy New Towns programme was launched in 2016 and will run until 2019
- The ambition is to join up the built environment with health and care services, to allow a reimagining of how some of these issues might be tackled. Residents will be 'nudged' into healthier behaviours in an environment which makes these choices easier

DESCRIPTION OF INTERVENTION:

- NHS England's Healthy New Town programme stemmed from the Five Year Forward View (2014)
- The scheme selected 10 demonstrator sites, covering more than 76,000 new homes with the potential capacity for approximately 170,000 residents. The Department of Health has set a target for 26,000 new homes to be built on NHS land
- The 10 demonstrator sites are all implementing different models and innovations, but two examples of these are:
 - **Whitehill and Bordon's** 3,350 new homes built on a former army barracks. A 'care campus' will co-locate 'care-ready homes' (designed with long-term conditions in mind) with a nurse-led treatment centre, a pharmacy and an integrated care hub.
 - **Darlington's** 2,500 new residential units, built across three linked sites in the Eastern Growth Zone. Darlington is developing a 'virtual care home' offer where a group of homes with shared facilities are configured to link directly into a digital care hub, thereby helping to avoid institutionalisation in nursing homes
- Speaking generally, common to many of the demonstrator sites will be features such as better signage, fewer trip hazards, and more playgrounds
- The overall objectives are to develop best practice, generate case studies and create guidance to help ensure that all new housing developments embed the necessary principles to promote health and wellbeing and secure high-quality health and care services.

OUTCOMES/FINDINGS:

- There has not yet been a full evaluation of the programme, but local areas are scoping out the potential for evaluation. Moreover, there is concern that the programme's reach is too modest to allow for full evaluation and conclusive results, as well as being too varied to allow for generalised conclusions across all of the sites

- As an example of local scoping, Fuse (a collaboration between public health researchers from five universities in the North East) undertook a scoping study for an evaluation of Darlington's programme³⁰. This was commissioned by the delivery partnership of the Council, Clinical Commissioning Group (CCG), two NHS Foundation Trusts, housebuilding company 'Keepmoat', and digital health technology provider 'Inhealthcare'
- The scoping study found that Darlington Healthy New Towns (DHNT) could have sustainable, long-term, effects on the health of the local population, but that the short timescales for demonstrating impact could hinder the process and limit innovative momentum
- To date, the scoping study found that DHNT has promoted multi-disciplinary and cross-organisation working. Moving forwards, structural and cultural changes will be necessary to continue to develop collaborative working.
- Patients need to understand their choices and how they can access new services, while practitioners need to embrace multi-disciplinary working in hubs. Meanwhile, community-based activities should focus on building a stronger sense of community to bring residents on board

Nesta's programme of Rethinking Parks

ISSUES BEING ADDRESSED:

- Public parks are a source of enjoyment for many, and bring a range of health and wellbeing benefits to the whole community. However, due to central government budget cuts, local authorities have often faced difficult decisions and many have reduced maintenance budgets or even decided to sell parks for development.

DESCRIPTION OF INTERVENTION:

- Nesta has worked with a number of parks across England to explore innovative business models to find new ways of sustaining public parks. Through an open call for ideas and a series of workshops, 11 projects were selected and the projects were given funding, mentorship and financial planning to test these new ways of working.

OUTCOMES/FINDINGS:

- Many of these innovations in park management and provision have been calculated to either save money or provide a return on investment³¹. One model in Burnley was predicted to save the council 10% of their parks budget by 2020, whilst a scheme in Sheffield has the possibility of generating a £10 million income scheme for the city's parks.
- However, whilst some projects were successful in providing alternative, sustainable funding models, others were not able to progress their ideas. An even longer squeeze of local authority budgets could also mean that even these new models might not be enough to sustain the financial viability of many parks.

Barriers and opportunities

BARRIERS

GEOGRAPHY

Geography can make providing a built environment that works for everyone more difficult. For example, many of the regional mayors have been focussed on cities, such as Birmingham and Manchester. Whilst these areas do encompass some rural surroundings, policy makers need to ensure that other rural areas, not near large cities, are not left out of the infrastructure benefits that these devolution deals may bring.

Providing efficient public transport systems in rural areas brings about many challenges, especially the fact that rural areas have, on average, older populations and public services need to cover larger geographical areas³². New transport innovations are needed to address these challenges. As aforementioned, policy makers also need to ensure that suburban areas are not forgotten in conversations about the rural/urban divide. For older adults who no longer drive, suburban areas can be as isolating as rural areas but may not receive the same recognition.

The 'postcode lottery' is also a concern: there are pockets of good practice in the built environment, but these are not sufficiently shared. Schemes promoting demonstrator sites need to ensure that practice is spread to other areas as quickly and clearly as possible, and recognise that this is likely to be resource-intensive. Moreover, the concept of disseminating good practice is about more than simply sharing designs and innovations; it is about sharing a positive and productive mindset and culture. Without the latter (and without good leadership), innovations are unlikely to take hold effectively.

Meanwhile, disparity in access to positive built environments is not only geographic but also socio-economic. The Royal Town Planning Institute (RTPI) has highlighted the importance of place-based approaches in tackling inequalities and has urged devolution deals to include addressing poverty and inequality in their agendas. The RTPI has also championed the use of local Strategic Economic Plans to examine poverty at a sub-regional level and encourage the adoption of neighbourhood planning in areas of deprivation.³³

BARRIERS TO DOWNSIZING

The current housing market has resulted in many people being in homes that are unsuitable for them as they age, whilst younger families are experiencing the pressures of a shortage of suitable housing stock. However, many older people are unwilling to downsize, for reasons such as emotional attachment to homes, the perception of downsizing as 'downgrading' and an inadequate supply of suitable and desirable homes for older people.³⁴ The housing market needs to offer affordable and desirable homes for all needs, in order to work for people of all ages. Please see the report from the first session of this Commission Inquiry for a more detailed conversation about transitions in this area.

ACTIVE TRAVEL AND OLDER PEOPLE

Encouraging more people to use active travel such as cycling and walking can improve the health and wellbeing of the population. As our population ages, there must be increased efforts to make it easier and safer for older people to take part in active travel. Currently only 1% of journeys by over 65s are by bike. This is compared to 15% in Denmark and 9% in Germany³⁵.

GOVERNMENT POLICY

Government policy towards adapting the built environment to improve health and wellbeing is often disparate, spanning many departments and crossing both central and local government. This has been noted in a recent Commission report on the built environment, which states that public health issues, such as air pollution and obesity, "are not considered fully by policy makers in the context of the built environment".³⁶ Moreover, housing is a widely dispersed topic, with the implications of housing on the health of wellbeing of older people spanning multiple government departments including the Department of Housing, Communities and Local Government, and the Department of Health and Social Care. This can hinder the political will to find innovative solutions to cross-cutting issues of health and wellbeing. In addition, continued cuts from central government to local authorities mean that non-statutory

obligations, of which the built environment often falls into, are under increasing financial pressures.³⁷

STRUGGLING PLANNING SECTOR

Generally speaking, local authority planning is performing poorly. The Town and Country Planning Association (TCPA) is so concerned about the poor state of planning in England that they have commissioned a review, chaired by their president, Nick Raynsford (the former Minister of State for Housing and Planning). The Raynsford Review recently published an Interim Report which includes figures from the National Audit Office showing that planning has been subject to the largest cuts of any function of local government.³⁸ In particular, Proposition Nine of the Interim Report calls for ‘a new kind of creative and visionary planner’ who can ‘communicate their creative and visionary ambition, not to impose upon communities, but to inspire action by offering real options for the future of places’. Planners need the space and capacity to demonstrate creativity and cultivate innovation.

LACK OF SUITABLE STANDARDS

Another area of concern is the lack of national standards for housing. Without basic minimum standards – for example, making the Building for Life approval compulsory³⁹ – developers, keen to reduce costs to a minimum, are likely to build homes as cheaply as they can, particularly in areas of low land value. This approach to building houses tends to have the biggest negative impact on older people, as they tend to spend more time at home. Without nationally set minimum standards, we are at risk of building new stocks of housing which are unsuitable for our ageing population, both in terms of physical accessibility and cognitive impairment and dementia. The latter is a particularly side-lined issue and one which needs to be further embedded into standards. This could be compounded by a new proposal in the government’s draft changes to the National Planning Policy Framework which would mean that the requirement for local authorities to have a Local Plan would change, and could pave the way for the adoption

instead of lighter-touch Strategic Plans. Concerns have been expressed by some stakeholders that this might run the risk of weakening the existing plan-led system and undermining the development of good placemaking policies.⁴⁰ The TCPA has expressed concerns that, given the costs inherent in writing local plans, local areas might quickly scrap them if no longer compulsory:

*“Effective planning requires a good grasp of strategic issues based on the real geography of a region. It also requires detailed place-making policy that can secure the design standards that people want. While the draft NPPF is clear on the requirement for strategic policy, it does not set out any minimum requirements for detailed place-making policy below that level. It is up to local councils to decide if they will prepare such policy”.*⁴¹

On the other hand, there are some very positive elements included in the NPPF proposed amendments. For example, the draft consultation text specifies that housing policies must identify the size, type and tenure of homes required for different groups in the community, including older people.

OPPORTUNITIES

ECONOMIC OPPORTUNITIES

Improved transport and mobility can benefit the economy. The economic return on investment of providing free bus passes to older people has been calculated as a £2.87 return for every £1 spent by government.⁴² As the Nesta programme on parks shows, effective innovation in management of public spaces can improve the financial sustainability of the built environment.

The consumer spending potential of older people is also often untapped by mainstream suppliers of suitable products and services.⁴³ As discussed earlier, major high street chains and department stores can seize this opportunity by addressing the product and design needs of older consumers, and thereby recognise that there is a clear market for inclusive designs that work for everyone.

TECHNOLOGY

The 'internet of things' is an example of emerging technology that can improve people's experiences of the built environment. In terms of ageing, the internet of things can help improve the home to help older people remain independent for longer. Innovations include drug cabinets that use a sensor to check medication adherence, reactive home heating and sensors that can track a person's daily routine and activity, and alert health professionals or family members if it changes unexpectedly.⁴⁴ Virtual assistants, such as Amazon's 'Alexa', also offer very promising opportunities to help promote independence in later life, in particular given their ease of use and seamless fit with daily life.

Technology can also reduce people's reliance on transport, for example via online shopping and social networks. However, research shows online methods cannot fully replace the social experiences of travel⁴⁵.

DEVOLUTION AND REGIONAL MAYORS

Recent years have seen further powers transferred from central to local government, and the increase

in directly-elected regional mayors. Other policy developments such as the Greater Manchester Health and Social Care Partnership have seen regions attempting to build cohesive public services that respond to local needs. This trend towards more local decision making could bring great opportunities for innovative approaches to the built environment. A recent major report from the Design Commission called for responsibilities for the built environment to be increasingly given to devolved regions and mayors, to improve productivity and health and wellbeing.⁴⁶

PROVIDING STRUCTURE AND LEADERSHIP

Sharing good practice will be key to the spread and embedding of innovations in the built environment. The Housing and Dementia Research Consortium Annual Conference provides an example of one of the ways in which good practice relating to the built environment and health & wellbeing can be shared. For example, in April 2018 the Consortium ran an event entitled: *Natural Connections: innovative approaches to green care for people living with dementia*. The session was designed to share learning and ideas relating to enabling people living with dementia to maintain a connection to the natural environment.

The Industrial Strategy Challenge Fund offers an opportunity for funding, again providing a clear pathway for innovative activity. The fund is designed to strengthen UK science and business innovation, thereby addressing the biggest challenges that society and industries face today. Competitions particularly relevant to the topic at hand include:

- Autonomous highway, rural and parking test facilities
- Connected vehicles data exchange
- Innovation loans

Both courageous and effective leadership are necessary to support innovations and to ensure that they are embedded in a sustainable way. Good leadership needs to be present in statutory services, for example in local authorities, but also along the whole length of the innovation cycle, including in the private sector.

Moreover, community champions can be highly valuable, maintaining pressure on the local area to ensure that innovations are promoted and embedded. Examples of effective voluntary groups include Dr Charles Musselwhite's reference to local champions in Newport, Wales, where local community activists have revitalised the local park and café.

INTERDISCIPLINARY WORKING

In 2014, the public health remit returned to local authorities, providing a renewed focus. It is anticipated that this will have several benefits, for example by promoting interdisciplinary working such as between local authority planning and public health teams. This could have both strategic and highly practical day-to-day benefits.

- The TCPA has sought to promote this kind of work, for example by publishing documentation and advice on this, as well as running workshops for councils.⁴⁷

Recommendations

DESIGN AND BUILD INCLUSIVELY, IN ORDER TO BUILD FOR EVERYONE

- Planners, architects, designers, construction teams and others must begin with inclusivity in mind, thereby designing environments suitable for all audiences and being mindful of both cognitive and physical disabilities.
- The mainstream consumer market must recognise that 'older people' do not necessarily want to be labelled as such, and all consumers have preferences over design, style, colour and other modifiable aspects. Inclusive products must come with choice and variety, and be designed to fit with a person's home and lifestyle.
- We urge companies developing products and services for older consumers to consider their advertising and marketing campaigns in this light.
- Inclusivity and age-awareness training is crucial along the whole length of the built environment pathway. The Design Council is one of the organisations leading the way with guidance and training, and we urge all sectors to adopt similar best practice models, including both public and private sector parties.⁴⁸ This needs to be rolled out for all staff, from Chief Executives to employees on the shop floor.
- Mainstream shops and department stores should consider developing design competitions to meet the needs and preference of this audience, whilst also stimulating innovation backed by funding.

LISTEN TO THE VOICES OF OLDER PEOPLE AND RECOGNISE THEIR INNOVATIVE POTENTIAL

- Integrate co-production methods into the development of new innovations. This is the responsibility of all innovators, no matter whether they are based in the private or public sectors.

- Utilising feedback and consultations tools are important to this, for example the OPERAT tool and others like it can provide useful feedback from lived experience, and can serve as a benchmark for future innovations.

MAINTAIN HIGH EXPECTATIONS FOR LOCAL AUTHORITIES IN LOCAL PLANNING

- Whilst we recognise the financial challenges facing local authorities, we argue that the development of effective local plans is crucial to community planning and, consequently, ensuring good health and wellbeing.
- We therefore call on Government to retain a firm stance on the need for local areas to have a Local Plan, rather than permitting lighter-touch Strategic Plans as has been suggested in the recent consultation on amendments to the NPPF.

VALUE HOMES TO IMPROVE HEALTH AND WELLBEING

- We call on the Government to mandate that all new homes should be built to Category 2 Lifetime Housing Standards, ensuring that homes are built to be both accessible and adaptable.
- Only 8% of local authorities have robust and accessible housing planning strategies; we want to see this number dramatically increased.⁴⁹
- Most Sustainability and Transformation Plans do not include housing as a core theme (with a few noticeable exceptions e.g. Nottingham and Nottinghamshire). We want all Sustainability and Transformation Plans to include private and rental housing, alongside residential and nursing homes, as a key element given the fundamental importance of housing to health and wellbeing.

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- We support the recommendations from the third HAPPI Inquiry undertaken by the APPG on Housing and Care for Older People, some of which we have highlighted already in this paper.⁵⁰

CREATE AND MAINTAIN OPPORTUNITIES FOR SHARING BEST PRACTICE

- Universities can play a role in convening experts by training and experience for the purpose of sharing best practice, through events, conferences and workshops.
- Expertise should be welcomed from the whole built environment network, for example including architects, planners, designers, retailers, manufacturers, construction teams and those with inclusive design needs.

HELP OLDER PEOPLE TO TRAVEL IN MORE THAN 'CRISIS MODE'

- Package services which include public transport, car and bike shares, and taxi services can help older people to move from car-ownership to alternative modes of travel. Pilot schemes should be funded and supported in the UK, with a focus on understanding how schemes like this could work in rural areas.
- Community car sharing schemes with volunteer drivers offer opportunities for supporting mobility in rural areas and should be extended.
- The opportunities of virtual reality to help people who have lowered mobility should be further explored. Successful pilot programmes should be supported by funding from central government to roll out more widely, with a focus on outcomes-testing.

FURTHER ROLL OUT PERSONAL BUDGETS, PERSONAL HEALTH BUDGETS AND INTEGRATED PERSONAL BUDGETS

- We support the Government's commitment to further rolling out PBs, PHBs and IPBs, as this will help individuals to maintain choice and control over their health and wellbeing.
- The built environment should form a key element in care planning conversations.
- Outcomes identified through this process should recognise the importance of the built environment in improving health and wellbeing, and funding should support this.

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