

Inclusive Design for Getting Outdoors

Researching how the design of streets and neighbourhoods can make a difference to older people's wellbeing and quality of life.



Pedestrian-
friendly
neighbourhoods

There is growing evidence that well-designed outdoor spaces can enhance the long-term health and wellbeing of those who use them regularly.

At I'DGO (Inclusive Design for Getting Outdoors), our aim is to examine what this means for older people. When we think about *lifelong* access to and enjoyment of neighbourhood environments, we place older people at the heart of the sustainability and regeneration agendas. But is this reflected in current policy? And does the latest 'best practice' in the design of outdoor spaces really meet the needs of all users?



Findings to date

The first phase of I'DGO, which involved over 770 people aged 65+, demonstrated the importance of outdoor environments in people's lives.

Those we talked to said they went out into their local neighbourhood very frequently, most often on foot (regardless of season). The main reasons they gave were to socialise, exercise, get fresh air and experience nature. We found that environments that make it easy and enjoyable to go out can have a crucial influence on older people's activity levels, general health and overall satisfaction with life.

As part of our study, we did a physical audit of 200 residential neighbourhoods and found that a typical street contains a number of barriers to getting around as a pedestrian. These environmental features often compound personal limitations and social circumstances, as well as fears about crime and heavy traffic. We looked at them in tandem with the preferences of 200 older people, who told us what detailed design features they see as being beneficial to getting outdoors.

Collectively, the research gave rise to a suite of guidance documents, including **Lifelong Access to Parks and Public Open Spaces**.



Why I'DGO matters to me

CABE is the government's advisor on architecture, urban design and public space. We believe that good design is inclusive design – providing places that we can all use with equal ease and dignity. On the basis that 'no one size fits all', the challenge is to design **in** different people and to make our streets feel like shared experiences. CABE is supporting the I'DGO TOO project because it is vital for designers to be able to realise this potential backed by a good evidence base.



Dr Edward Hobson, Head of Sustainable and Inclusive Design, CABE



What we are looking at now

Progress on the next phase of research – I'DGO TOO – is well underway, supported by the Engineering and Physical Sciences Research Council.

This involves the work of four leading research centres: the Edinburgh-based OPENspace; SURFACE and the Centre for Health, Sport and Rehabilitation Sciences Research at the University of Salford; and the WISE (Wellbeing in Sustainable Environments) research unit at the University of Warwick.

Collectively, we are placing a critical focus on the way in which sustainable design policies and practice influence 'everyday' outdoor environments for older people: an area where evidence is currently lacking. We know from the first phase of I'DGO what the *likely* benefits will be but also where certain design features may actually create problems, especially if badly maintained. Our ultimate aim is to influence age-friendly, sustainable design approaches at a range of scales, from the places in and around people's homes to local neighbourhoods and wider urban environments. >>



>> One of the key areas in which current best practice may present both benefits and barriers to older people is in the design of pedestrian-friendly neighbourhoods. Here the focus is on transforming residential street environments into 'shared spaces', where pedestrians and vehicles have an equal share of the road space and people are encouraged to use streets in different ways. The idea is to strike a balance between quality of life and local traffic flow. Home Zones, which originated in The Netherlands in the 1970s (as 'woonerf'), are probably the best known way of achieving such ideals.

'Shared spaces' are created through the physical alteration of the public realm to enhance the pedestrian experience – such as through planting and street furniture – and to calm vehicular traffic at the same time. The OPENspace element of I'DGO TOO is looking specifically at how such interventions influence older people's activity patterns and the knock-on effect this has on wellbeing. We want to know if living in a 'shared space' residential environment enables older people to go outside more often, spend more time outside, have better social networks and enjoy an enhanced quality of life.



Why I'DGO matters to me

I was attracted to I'DGO because of how closely it matched my own research and academic interests. Joining the project was an opportunity to combine my expertise in the study of open and natural environments—as per my Master's work in Brazil on Environmental Psychology—with a concentration on older people, the focus of my PhD in Architecture in the US. It is not often that researchers get the chance to become involved in a four-year longitudinal study, especially in a 'real world' setting. I am excited by the project's potential to effect positive change in the areas I'm passionate about.



Dr Susana Alves PhD





Our longitudinal study is the first of its kind in this subject area, in that it focuses on participants' experiences before and after environmental changes are made.

It also compares the perceptions of older residents in newly-developed 'shared space' streets with those of their peers in similar, nearby, 'control' streets where no such measures have been introduced.

In short, our research compares changes to local streets over time, with or without environmental interventions.

This is a very powerful way of exploring how such changes can make a difference to outdoor access for older people and impact significantly on their quality of life.



How we are conducting our research

In seeking to demonstrate any relationship between environmental interventions and wellbeing – and to systematically evaluate how it works – we are addressing head-on the challenges of doing long-term studies in ‘real world’ contexts, especially those involving older participants.

This has engendered the need for a variety of research methods and tools, both subjective and objective. Our mixed methods approach helps us to take on board the perceptions and preferences of older people in their own words, as well as assess outdoor environments and activities independently. Our four principal methods of enquiry are:

A five-part questionnaire conducted via a semi-structured, face-to-face interview. The information we collect ranges from basic, factual data (such as age, living arrangements and how often the participant typically goes outdoors), to more qualitative material. We ask things such as: what types of outdoor activities people like to do and comparatively how important and enjoyable they find them; how they rate their local neighbourhood and outdoor spaces; how satisfied with life they are; and how healthy they consider themselves to be (using previously validated scales to explore a range of quality of life factors).

An activity diary. This is completed by participants on a self-directed basis, documenting what outdoor activities they partake in and what social contact they make in outdoor environments. The diaries are kept over the course of one week, during which time each participant also wears an accelerometer during normal waking hours. The accelerometer counts the number of steps each participant makes and the duration, type and intensity of each of their activity ‘bouts’ during different time periods (hour-to-hour, day-to-day etc.). It is a more precise tool than a pedometer – various types of which were used during pilot studies.

Street audits. Based on a checklist of elements – from the pattern of street trees (if any) present to the range of buildings and paving surfaces – these audits allow us to independently record the characteristics of local street environments. They are undertaken using an updated version of a tool developed by the OPENspace team for measuring the ‘walkability’ of urban streets (by Millington and colleagues as part of the Scottish Physical Activity Research Collaboration – SPARColl).

Behavioural observations. Drawing on a recognised protocol developed over twenty years ago by the Danish urban designer, Jan Gehl, these exercises allow us to independently record people’s activity – regardless of age – in the streets within our study area. They complement our first two lines of enquiry – the questionnaire and activity diary/accelerometer – by objectively measuring the activities undertaken and social contacts made in outdoor environments.



How we've chosen the survey sites

We are grateful to our many I'DGO partners who helped identify a number of planned Home Zones, or other 'shared space' developments, coming on stream in 2009. The timing was crucial in that it has allowed us to undertake two phases of data collection; both 'before' and 'after' environmental changes are made.

Sustrans, a sustainable transport charity, has been particularly helpful in identifying a number of 'DIY streets' sites across England and Wales. Most of these are retro-fit schemes – projects involving improvements to existing streets. These are unusual in Scotland, so we have devised an alternative approach for the Scottish context. This involves talking to participants living in 'conventional' streets who are about to move into new-build homes in nearby 'shared space' developments, such as the PARC scheme in Craigmillar, Edinburgh.

In almost all cases, our sites are located in areas of high multiple deprivation: the places most likely to attract funding for environmental improvements and redevelopment. Thus our sample is principally made up of older people living in disadvantaged surroundings.

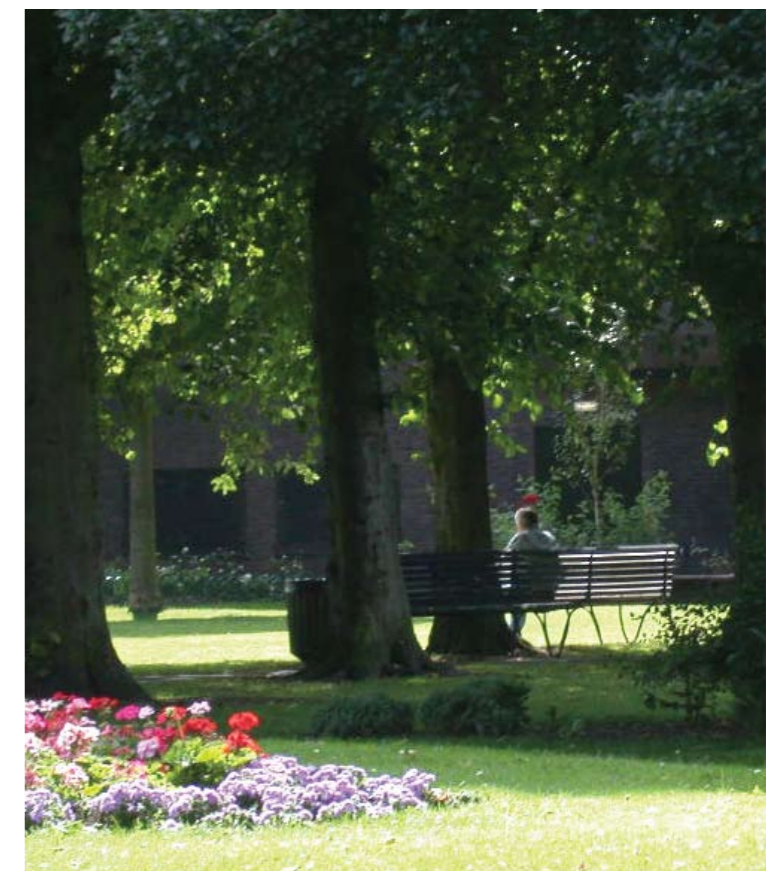


What we've achieved to date

As far as possible, we've contacted every person in our survey areas that we know to be aged 65 or over. To maximise the accessibility of our research and promote participation, we've used a variety of approaches, from pre-emptory mailshots to presentations. We are grateful to a network of local contacts and facilitators, including residents' associations and community forums, for their help in this.

Following pilot studies in Glasgow, Manchester and Edinburgh (in late 2007), we have now collected data from eight 'shared space' sites and corresponding control sites (streets which are very similar in character to those in the 'before' phase of redevelopment).

100 interviews have been carried out and just under 50 people have participated in the activity diary and accelerometer element of the research. In addition – following a reliability test of our toolkit – we have audited 27 streets and undertaken 208 behavioural observations and parked vehicle counts.



What we've learned to date

From the baseline data collected so far – during the 'before' part of the study – patterns are already beginning to emerge, many of which reflect what we learned in the first phase of I'DGO. For example...

- participants place great importance on being outdoors, whether alone or for social purposes
- activity levels vary considerably from person to person, but they do not seem to relate to the age of the participant, with many people aged 85+ remaining actively engaged in outdoor hobbies such as gardening
- time of day plays an important role in determining activity patterns – for example, whether a participant goes out alone and/or makes social contact when outdoors – but not activity types, with the vast majority of participants being engaged in walking (or using a wheelchair) at any given time

The 'after' part of the study will determine if such activities are enhanced or hindered by 'shared space' settings and seek to identify particular design features which make a difference to older people's outdoor experiences.



Why I'DGO matters to me

I was immediately interested in taking part in this research because it concerned two things I care about: my neighbourhood; and access to open spaces for people to benefit from. By this I mean all people of all ages: children to run and play freely; others to take exercise and walk dogs; the elderly to stroll to meet friends and sit peacefully. Also, as a retired person with time available, I have enjoyed participating and the new ideas it has given me.

Nicolette Winterbottom, participant



The I'DGO TOO pedestrian-friendly neighbourhoods study is being undertaken by OPENspace: the research centre for inclusive access to outdoor environments at Edinburgh College of Art, The University of Edinburgh and Heriot-Watt University.

Our team comprises: Professor Catharine Ward Thompson; Professor Peter Aspinall; Professor Archie Young; Dr Susana Alves; Dr Jenny Roe; Dr Affonso Zuin; and Dr Catherine Millington, with the assistance of Petros Andreadis, Flis Callow, Jaya Ghosh and Julia Markovich.

We are grateful to an international team of experts from academia, the public and charity sectors and commercial industry, including our three external advisers...

Rob Methorst of the Rijkswaterstaat Centre for Transport and Navigation, Dutch Ministry of Transport, Public Works and Water Management;

Dr Brian Little of McGill and Carleton Universities (Canada) and Harvard University (USA);

Professor Fiona Bull of the University of Western Australia

.. and our UK partners: Help the Aged; Guide Dogs; Department for Transport; Scottish Government; NHS Health Scotland; CABE Space; Greenspace Scotland; Swindon Borough Council; Sustrans; Transform Scotland; Living Streets; Institute of Highway Engineers (IHE); Central Council for Physical Recreation (CCPR); Jacobs Babbie; Phil Jones Associates; Peter Brett Associates; EDAW; Mayer Brown; and Ian Wall (an independent consultant).

As well as participating in progress meetings, they have assisted in many ways, including refining research instruments, identifying survey sites and making contact with older participants.

About us



I'DGO is built around a core group of international academics in three leading research centres: the Edinburgh-based OPENspace; SURFACE at Salford; and the WISE (Wellbeing in Sustainable Environments) research unit at the University of Warwick.

We are funded by the Engineering and Physical Sciences Research Council and play an active role in its flagship knowledge transfer consortium, KT-EQUAL (www.equal.ac.uk).

Our focus is on identifying the most effective ways of shaping outdoor environments inclusively. We support the needs and preferences of older people and disabled people, always seeking to improve their independence and overall quality of life.

Our multi-disciplinary consortium is a virtual centre of excellence, involving a wide range of partners engaged in older people's issues. We use innovative research tools and 'joined-up' quantitative/qualitative methods.

We are committed to maximising the accessibility of our research; our findings have already had a significant impact on the decision makers and designers who influence our built and natural environments.

For further information on the I'DGO TOO pedestrian-friendly neighbourhoods study, please contact: Professor Catharine Ward Thompson by telephone +44 (0)131 221 6177 or email c.ward-thompson@eca.ac.uk

For information on all three I'DGO TOO projects, please get in touch with: Máire Cox by telephone +44 (0)131 221 6055 or email m.cox@eca.ac.uk



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