



Hannah Biggs Research Assistant, Laura Tirman Research Assistant, Kathleen Morrison Research Assistant, Dr Ruth Jepson Lead for Evaluation Research, Dr John McAteer Team Manager, Dr Greig Inglis Research Fellow. The Scottish Collaboration for Public Health Research & Policy (SCPHRP). Contact: Hannah.biggs@ed.ac.uk

BACKGROUND

The importance of good quality outdoor public spaces for fostering health and wellbeing is becoming increasingly recognised in policy agendas, including the UN Sustainable Development Goals (SDGs). One of the targets for achieving goal 11, "Sustainable cities and communities", is:

"By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities"

To achieve this goal, a diverse range of people need to be engaged in evaluating the public spaces they use (or avoid) to identify what makes a public space safe, inclusive and accessible. Citizen science can play an important role in achieving this goal.

Citizen science and public health

Traditionally, citizen scientists have been involved in collecting information about the natural world (e.g. bug counts, testing soil); however, citizen science in public health research has great potential and is gathering interest. The focus of Our Outdoors is about health and outdoor space.

ABOUT OUR OUTDOORS

Our Outdoors is a public health citizen science project which aims to:

- Understand the impact shared (e.g. public) outdoor spaces have on the health and wellbeing of the public.
- Investigate whether shared outdoor spaces affect people differently and if so, why and in what ways?
- Identify the best methods for engaging members of the public in citizen science for public health.

The project has four phases:

1. Developing, validating and refining the questionnaire
2. Piloting the questionnaire in Edinburgh and the Lothians
3. Analysis, reporting and dissemination of questionnaire data
4. Roll out of Our Outdoors across the UK

Members of the public will be engaged in all phases of the project.

Our Outdoors was chosen by the UK Medical Research Council (MRC) as their citizen science project for 2017. Our Outdoors is led by the Scottish Collaboration for Public Health Research and Policy (SCPHRP), University of Edinburgh.

METHODS

We have used several methods of engagement to collaborate with the public to learn about health and wellbeing in specific shared outdoor spaces. These methods are outlined below.



SUMMER 2017 SCIENCE BUS

In summer 2017, we ran a series of community drop-in events across England to test questionnaire formats and explore how shared local spaces affect people's health and wellbeing.

Activities included:

- **Using emoji stickers** on a large map of the local area to identify how different spaces made people feel
- **Gathering feedback** on the formatting and accessibility of the questionnaire
- **An idea wall** for sharing what makes a space good or bad



EARLY 2018 WORKSHOPS

In early 2018, we delivered three participatory workshops with 36 members of the public to:

- **Explore** how shared outdoor spaces affect our health
- **Understand** elements of a space that make people enjoy being in a space or not
- **Hear** what would encourage people to become a citizen scientist

We recruited participants in partnership with existing community groups. Participants were a mix of ages and genders and included those from both affluent areas and areas of deprivation. We also engaged older adults and people with experiences of poor mental health.



SPRING 2018 SCIENCE FESTIVAL

In spring 2018, we ran a 5 day drop-in event at the Edinburgh International Science Festival. Over 1600 people visited the Experimentarium that week. We delivered four interactive activities.

- **Ideas tree:** People answered on a green leaf "what do you like about outdoor spaces" and wrote on a red/orange leaf "what you do not like about outdoor spaces".
- **Graffiti board:** People wrote or drew their answer to the question "what is your favourite shared outdoor space and why?"
- **Lego:** People used Lego to build "a happy and healthy space" or "an unhappy and unhealthy space".
- **Blue Spaces:** Participants pressed buttons with water sounds, imagined being in an outdoor space with water, and wrote or drew how they felt.



FINDINGS

SHARED OUTDOOR SPACES

In all public engagement activities, members of the public reported spending time in green, blue and grey spaces.

Common words people used to describe how they feel in shared **outdoor spaces they enjoy**

ENERGISED STIMULATED
CALM PEACEFUL HAPPY
RELAXED refreshed
free REFLECTIVE

Common words people used to describe how they feel in shared **outdoor spaces they don't enjoy**

ANNNOYED FRIGHTENED
ANGRY UNCOMFORTABLE
STRESSED
DEPRESSED apprehensive
FRUSTRATED UNSAFE

WHAT PEOPLE SAID THEY ENJOY ABOUT SHARED OUTDOOR SPACES



NATURE	BEING ACTIVE	MENTAL HEALTH & WELLBEING	SOCIAL INTERACTION	SENSORY	AMENITIES
Seeing and hearing birds and wildlife, fresh air	Cycling, walking, doing activities they enjoy, playing	Getting away from stress, being alone, relaxing	Meet new people, connect with friends, family or community	Smells, sounds and feel of nature, water and weather	Well-looked after spaces that are accessible (e.g. transport, litter disposal)

WHAT PEOPLE SAID THEY DON'T ENJOY ABOUT SHARED OUTDOOR SPACES



BEING COLD & WET	LITTER & POLLUTION	ANTI-SOCIAL BEHAVIOUR	FEELING UNSAFE	ACCESSIBILITY	AMENITIES
Rain, wind and snow	Noise pollution, cigarette butts and traffic fumes	Vandalism, swearing, dog fouling, lack of respect for other users	Traffic, cyclists, crime, other users in the space	Overcrowded spaces (e.g. cyclists, pedestrians, traffic)	Lack of parking, damaged property

MOTIVATIONS AND BARRIERS TO ENGAGING IN CITIZEN SCIENCE

We asked citizens what would motivate or prevent them from taking part in Our Outdoors as a citizen scientist.

Motivations to become a citizen scientist:

- Opportunity to make a difference to the environment or community
- Meeting new people
- Learning new skills and access to training
- Taking part in research
- Incentives provided e.g. food, free transport, competitions

Barriers to becoming a citizen scientist:

- Cost (e.g. transport, materials)
- If location was far away or hard to access
- If they didn't have the time to engage in activities
- Not feeling valued or listened to
- Not having the skills to take part

NEXT STEPS

- **Draft questionnaire:** The information gathered from public engagement activities is being used to draft a questionnaire to measure people's health and wellbeing in specific shared outdoor spaces.
- **Validating and testing questionnaire:** Once the questionnaire is complete citizen scientists will be engaged to conduct cognitive testing of the questionnaire items. This will inform a final questionnaire.
- **Questionnaire piloting and public engagement** activities will take place in Edinburgh and the Lothians before being rolled out across the UK.