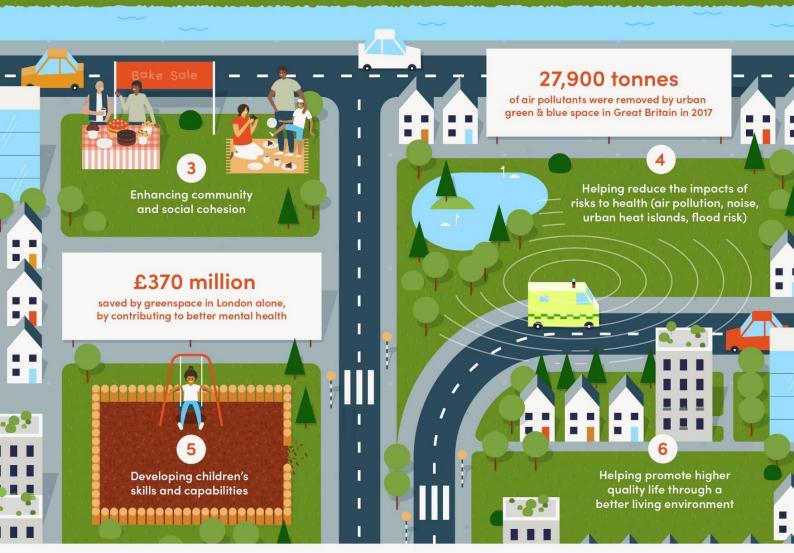
Making the most of green space for people's health





Interventions to increase or improve urban green space can deliver positive health, social and environmental outcomes for all population groups, particularly among lower socioeconomic status groups. There are very few, if any, other public health interventions that can achieve all of this.



Urban Green Space Interventions and Health









Green spaces have the potential to help local authorities address other key delivery issues. They can help:



Reduce health inequalities



Provide a setting for physical activity



Support action on climate change



Tackle excessive noise





Combat loneliness and

improve social cohesion



Improve air quality



Keep people healthy & help them recover more quickly



Promote active travel

What can local authorities do to enhance health benefits of green space:

Improve

Improve, maintain and protect existing green space to ensure they are being used for maximum effect.

Improve transport links, pathways and other means of access to green space.

Provide imaginative routes linking areas of green space for active travel.

Engage

Establish interventions, such as community or green social prescribing initiatives.

Introduce natural capital accounting to demonstrate value of green spaces.

Act as a green space ambassador and work with colleagues in other departments to make the links.

Incorporate health into Local Plan and develop supplementary planning documents that cover green space.

Expand

Provide new, good quality green space that is inclusive and equitable (especially in new developments).

Increase green infrastructure within and between public spaces and promote healthy streets.

Principles of successful interventions:

A dual approach of physical changes to green space and well-targeted social promotion activities has been shown to be most effective in encouraging use and benefit.

Accessibility of green space needs to be considered, for all communities. This includes the distance from home to green space, the ease and safety of the route and the familiarity of different groups with visiting green spaces.

Also consider how the capabilities of individuals in the local community and the local context may affect accessibility.

Quality of green space

has an impact on benefits – both the ecological quality (biodiversity and planting) and the condition of the space (amenities, how well they are maintained, aesthetics, perceived safety).

Essential to incorporate inclusive design.

Community engagement

is key – at all stages, from designing and maintaining to supporting people to use green space – this is especially important to reach more disadvantaged/ excluded groups.

To do this it is vital to understand the barriers to using green space for different communities.

Making the Most of Green Space for People's Health is new evidence based guidance for Local Authorities and other stakeholders on the ways in which green space benefits health, and can be improved, expanded and promoted to maximise benefits for people and place.

TO SUPPORT THE GUIDANCE WE HAVE CREATED A SET OF RESOURCES

- Page 4 Summary of the evidence on the health benefits of green space
- Page 7 How green space contributes to other agendas for local authorities
- Page 10 What local authorities can do to enhance the health benefits of green space
- Page 14 Principles of successful interventions for improving health benefits of green space
- Page 16 Case studies
- Page 27 Supporting documents and research papers







Summary of Evidence

There is substantial evidence of a range of positive health and wellbeing outcomes linked to living in greener communities and having greater exposure to green space.

In this section you will find a summary of findings that are reasonably well established in the scientific literature to support our Making the Most of Green Space for People's Health guidance.

What to we mean by "Green Space"?

In this document we intend it to include the full diversity of green and blue spaces from parks and gardens to beaches to countryside footpaths

"Spending time in the natural environment – as a resident or a visitor – improves our mental health and feelings of wellbeing. It can reduce stress, fatigue, anxiety and depression. It can help boost immune systems, encourage physical activity and may reduce the risk of chronic diseases such as asthma. It can combat loneliness and bind communities together."

UK GOVERNMENT, 25 YEAR PLAN FOR THE ENVIRONMENT

Health benefits of green space

There is a relatively robust and extensive body of evidence regarding the relationships between exposure to, use of, and perceptions of green space and a number of mental and physical health outcomes. These include reductions in psychological stress, fatigue, anxiety and depression, and promotion of better subjective wellbeing, as well as a variety of improved physical health factors.

There are some limitations of the evidence base, such as some poor quality studies, and we don't know much about how the qualities and characteristics of green spaces affect health impacts. The findings are also quite mixed, for example some studies on living close to green space and physical activity have found no relationship. These limitations are well discussed in the literature and in reviews of the evidence.

MENTAL HEALTH BENEFITS OF GREEN SPACE

- The evidence suggests that greater exposure to greenspace enhances quality of life for children and adults.
- Children and young people living in greener environments tend to be found to have better mental wellbeing outcomes.
- Studies have found links between experiencing nature in urban environments and positive emotions
- Greener living environments are linked to reduced levels of depression, anxiety and fatigue.



Summary of Evidence

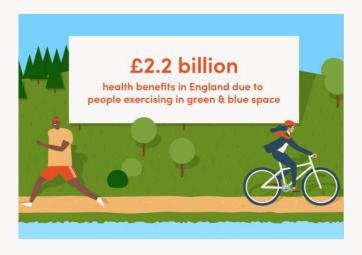
PHYSICAL HEALTH BENEFITS OF GREEN SPACE

- Studies have found that a greater percentage of green space around a residence is associated with reduced mortality.
- Several studies have found self-related health tends to be higher in those with greater exposure to natural environments, especially if the environment is of good quality.
- Greener living environments are linked to less physiological stress symptoms, lower blood pressure, lower cholesterol and lower incidence of type 2 diabetes.
- Higher levels of green space around the home are associated with more favourable birth weight, as well as with a range of cognitive development indicators in childhood.

HOW DOES GREEN SPACE PROMOTE HEALTH?

There are a variety of ways that greenspace can promote positive health and wellbeing outcomes, including:

- Physical activity: visits to green space are often associated with higher levels of physical activity, often through walking. Physical activity is one of the cheapest and most effective forms of health improvement and preventing disease.
- Community and social cohesion: green spaces, especially in urban settings, can help people feel connected to their communities, and help minority groups become better integrated and identify with their communities. Green spaces can reduce isolation and loneliness by providing the opportunity to participate in shared social activities.
- Rest and relaxation: spending time in or near green spaces can help reduce stress and anxiety.
- Reduced environmental hazards: Green spaces can help to reduce levels of air pollution, and can also help to mitigate the urban heat island effect.
- Improved living environments: people do not necessarily need to 'use' greenspace to benefit, greener living spaces are often considerate to be higher quality and are linked to better health and wellbeing.



Summary of Evidence

OTHER FACTORS THAT INFLUENCE THE HEALTH IMPACT OF GREEN SPACE

There are a wide range of factors that influence how green space might impact health and wellbeing for a community. As mentioned above, we still do not thoroughly understand this complex set of relationships, but things to consider could include:

- Different types of environment might be important for different people.
- Environmental 'quality' is important, but multidimensional. The natural qualities of places might influence how they are used and valued for health and wellbeing, including factors such as vegetation, wildlife, topography, presence of water and gardened areas.
- Facilities and amenities that make places attractive and accessible to people are also important, for example presence of benches or other places to sit, signs and interpretation materials, access to refreshments, toilets, parking, paths and other facilities.
- Perceptions matter. For instance, how safe does the place feel? Is it a place that people perceive as somewhere they belong? Are there other people there that they do or don't want to encounter?

These factors may all be differently important for different people – for example what is restorative for a parent with young children may be different for a group of teenagers or an older couple. There may also be differences between people who have different experiences, such as those that have grown up in nature versus those more used to built environments.

RISKS OF GREEN SPACE TO HEALTH

In addition to human health benefits, there are some risks to human health to be considered when seeking to "green" urban areas or change existing management practices.

- One potential risk of increased/changed planting in towns and cities is the possibility of increased allergenic pollen prevalence. Although not all pollen is allergenic, the risk of adverse reactions is considered greater in urban areas due to compounding urban heat island effects and air pollution.
- Another risk is a boost in the number of 'pest' species, such as ticks. Information and education can help mitigate these risks.
- One other issue is the potential for 'green gentrification', where environmental improvement may lead to adverse social impacts such increases in house values, pricing out local people.

These risks should not be overstated, but it is necessary to consider the potential for unintended consequences of green spaces and interventions using them.



How Green Spaces Contribute To Other Key Agendas

Protecting and utilising green spaces can help local authorities deliver other key priorities including promoting health behaviours and reducing health inequalities, as well as a number of environmental needs such as supporting action on climate change, improving air quality and reducing noise. In this section we detail how improving, expanding and promoting green spaces can maximise benefits for people and place.



Reduce health inequalities





Combat loneliness and improve social cohesion



Provide a setting for physical activity



Improve air quality



Support action on climate change



Keep people healthy & help them recover more quickly



Tackle excessive noise



Promote active travel

Key agendas green space can contribute to



Reduce health inequalities

- Research has shown that socioeconomic inequalities in health are lower in greener neighbourhoods.
- Providing good quality greener environments in more deprived areas could therefore help reduce health inequalities.
- However, the most economically deprived areas tend to have less available public green space and the quality of green space tends to be poorer in more deprived areas.
- Unequal provision of good quality green space means that those at greatest risk of poor physical and mental health may have the least opportunity to benefit from green space.

How Green Spaces Contribute To Other Key Agendas



Provide a setting for physical activity and promote active travel

- Green spaces provide a free at the point of use (or low cost) space for exercise and physical activity, and can also encourage active travel.
- Many people report that greenspaces are a preferred place to be physically active.
- Much of the health benefit from physical activity in green space can be gained from simply walking and does not have to be organised sport or more intensive exercise to be beneficial.
- Green spaces are an important setting for children's physical activity, helping them develop the fine and gross motor skills they need for activity in later life.



Provide a setting for physical activity and promote active travel

- Green spaces can contribute to all three levels of the prevention of agenda:
 - 1. Primary prevention: helping people to stay healthy through the benefits of exercise, and improved mental health.
 - 2. Secondary prevention: helping to limit the impact of a condition (e.g. diabetes), by offering opportunities for improved activity levels.
 - 3. Tertiary prevention: help with speedier recovery from poor health and surgery, and can help reduce impact of living with a chronic or acute health condition.





Combat loneliness and improve social cohesion

- Green spaces can help combat loneliness through providing a space for social contact and helping people develop a sense of belonging in their local community.
- Green spaces provide a venue for a wide range of activities, such as walking groups, mass participation runs, gardening groups, and children's play.
- They provide volunteering opportunities including friends of groups, or participation in maintenance and other community activities.
- Green spaces can help people establish themselves within new communities.

How Green Spaces Contribute To Other Key Agendas



Support action on climate change

- Expanding and improving green space can provide opportunities for tree planting as well as increasing biodiversity. Planting of trees can help address some of the causes and impacts of climate change.
 - Green spaces can also reduce the effects of flooding and extreme rainfall.
- Green space can also provide cooler areas for people to visit in instances of extreme heat, especially if planted with trees that offer shade, and with water features.



Improve air quality

- Air pollution is the top environmental risk to human health in the UK.
- Air pollution can worsen and exacerbate existing health conditions, affecting both physical and mental health, and lead to reduced life expectancy.
- Urban green and blue space can contribute to removal of air pollutants from the environment.
- People's exposure to air pollutants can be substantially reduced through appropriate vegetation, typically positioned in such a way as to separate people from the pollution.
- There is also a link between air quality and health inequality. Pollution levels are, on average, worse in areas of highest deprivation compared with areas of lowest deprivation. Improving green space for the most deprived communities can tackle both negative effects of air quality and other impacts of heath inequality.



Tackle excessive noise

- Long term exposure to noise is linked to sleep disturbance, chronic annoyance and cardiovascular disease. Green space has a direct positive effect on health outcomes due to noise attenuation. Trees in particular can act as buffer to noise.
- People in urban areas value the ability to enjoy areas of quiet or relative quiet away from the sounds of urban life, which green spaces can provide.
- There is evidence to suggest that tranquil green space can compensate for the adverse health effects of noise in the residential environment.

What Can Local Authorities Do to Enhance the Health Benefits of Green Space?

Local authorities are responsible for protecting and maintaining many urban green spaces and also for protecting and improving public health. There are important opportunities for decision makers in local authorities to consider public health impacts when making decisions regarding green space. **This section considers the ways in which both existing and new green spaces can be enhanced to improve health.**

What to we mean by "Green Space"?

In this document we intend it to include the full diversity of green and blue spaces from parks and gardens to beaches to countryside footpaths

Examples of when the health benefits of green spaces could be considered:

- planning decisions on new housing development or land use changes
- decisions on funding for park maintenance and improvement
- support for community activities making use of green space, especially in disadvantaged communities.

"In simple terms the local authority could seek to offer a view, a brew, a pew, a loo and something to do."

What can local authorities do to enhance health benefits of green space: Expand **Improve** Engage Improve, maintain and protect Establish interventions, such Provide new, good quality green existing green space to ensure they as community or green social space that is inclusive and equitable are being used for maximum effect. prescribing initiatives. (especially in new developments). Improve transport links, pathways Increase green infrastructure within Introduce natural capital and other means of access to accounting to demonstrate value and between public spaces and green space. of green spaces. promote healthy streets. Provide imaginative routes Act as a green space ambassador and work with colleagues in other linking areas of green space for active travel. departments to make the links. Incorporate health into Local Plan and develop supplementary planning documents that cover green space.

What Can Local Authorities Do to Enhance the Health Benefits of Green Space?

1: IMPROVE EXISTING GREEN SPACES

Improve, maintain and protect existing greenspace to ensure they are being used for maximum effect. The condition of the green space has an impact on the benefits they can convey. It is important that spaces are safe, attractive and welcoming to visitors.

"...aesthetics, perceived safety and social environment found within a site plays a key role in people wanting to use them" DEFRA, 2008

Examples of actions that can be taken to improve green spaces include:

- Increase the number and diversity of trees.
- Increase the variety of planting.
- Tackle litter.
- Improve lighting and security.
- Ensure spaces are welcoming for all cultural and demographic groups.
- Provide facilities such as play areas, cafés and toilets.
- Support friends of groups to encourage volunteering in green space (for maintenance and running of activities).
- Increase the quality and quantity of activities on offer in green spaces, which are provided by partners or the local authority itself.
- Identify resilient funding arrangements for the maintenance of green space.

Whilst green spaces provide opportunities for social integration, they can also amplify divisions if no proactive steps are taken to engage with more disadvantaged or excluded communities or to manage anti-social behaviours.

2: EXPAND AND CREATE NEW GREEN SPACES

Provide new, good quality green space that is inclusive and equitable (especially in new developments). Ensuring that people live and work close to green space is important, as a rule of thumb, the World Health Organisation recommends that urban residents should be able to access public green spaces of at least 0.5 hectare within 300m linear distance (approximately 5 minutes walk) of their homes.

Other action include increasing networks of green infrastructure within public spaces and promote healthy streets. Think of the maintenance needs of any new green spaces. Use plant species with no or small allergic potential. Consider opportunities for improvement of existing spaces, particularly the enhancement of biodiversity.

What Can Local Authorities Do to Enhance the Health Benefits of Green Space?

3: ENGAGE WITH STAKEHOLDERS

Engaging with relevant stakeholders, whether the communities themselves or other departments and sectors, is an important step in making the most of green space for health.

Engage with stakeholders across the system

To maximise the benefits of green space there is a need for co-ordination between health care and promotion, environmental, transport and planning departments, education providers and voluntary and community sector organisations. Local Authority public health teams need to be participants in planning, housing and development to ensure health considerations are at the heart of planning.

Joint Strategic Needs Assessments and Joint Health and Wellbeing Strategies can be used to define how local green space can be used to meet health needs of the population.

Local plans and supplementary planning documents can be used to help ensure developers incorporate appropriate green space and green infrastructure into their developments. Developers can also be asked to contribute to infrastructure. Mechanisms such as community infrastructure levy and planning obligations in Section 106 can be used to enhance and increase green spaces.

Departments can collaborate through structures such as Integrated Care Systems or Sustainable Transformation Partnerships – from initial planning through to delivery and ongoing promotion of green space for health outcomes.

Transport and planning departments could work to improve transport links, pathways and other means of access to green space and provide imaginative routes linking areas of green space for active travel.

Local authorities can also work with voluntary and community sector organisations to provide new activities or support existing ones, promote green space, and help to engage with communities.

One of the most important ways Local Authorities can act is to *think 'up-stream'* and create the conditions for actions which take account of the value of greenspace for health. In relation to planning, for instance, potential actions include a) strengthening planning policy for new development; b) working with developers to ensure green space and wider green infrastructure is considered early in the development process; and c) engaging with elected members on the importance of green space and green infrastructure.

What Can Local Authorities Do to Enhance the Health Benefits of Green Space?

Engage with communities

In addition to providing spaces that are safe and accessible, people may need encouragement and help to get out and use green space. Well-planned interventions, suitable for the intended group, are required to raise awareness and facilitate use.

Consultation with target populations can provide particular insight into what is most needed to initiate engagement with and use of the natural environment. There is a growing body of evidence aiming to understand why certain groups are less likely to use green space. Factors include:

- Physical barriers, such as a busy road.
- Distance to the green space.
- Topography.
- Poor transport, lack of local parking.
- Lack of facilities including paths, benches, lighting, toilets.
- Social and cultural barriers and perceptions including ati-social behaviour, feeling the space isn't for them, and the presence of dogs.

Not all groups will be affected by these factors equally and some groups, such as older people and those living with a disability, may face more challenges to use.

Inclusive design aims to create places where everyone can participate equally, independently and with confidence and dignity. It places people at the heart of the design process, acknowledges diversity and difference, offers choice, provides flexibility in use, and creates environments that are convenient and enjoyable for everyone to use.

Understanding the impacts of actions

It is also important to gather evidence of the value of green spaces. For example, by using natural capital accounting and other tools to understand and demonstrate the multiple values of green spaces, as well as conducting and supporting evaluation of local green space interventions to help build a broader evidence base.



Principles of Successful Interventions For Improving Health Benefits Of Green Space

Provision of sufficient quantities of appropriate green space is only one element of successful action to promote health. There are other factors that contribute to ensuring health benefits are maximised and that all groups and ages can access these benefits. In this section you can find evidence based guidance on the principles of successful green space interventions for health outcomes.

A dual approach of physical changes to green space and well-targeted social promotion activities has been shown to be most effective in encouraging use and benefit.

Accessibility of green space needs to be considered, for all communities. This includes the distance from home to green space, the ease and safety of the route and the familiarity of different groups with visiting green spaces.

Also consider how the capabilities of individuals in the local community and the local context may affect accessibility.

Quality of green space

has an impact on benefits – both the ecological quality (biodiversity and planting) and the condition of the space (amenities, how well they are maintained, aesthetics, perceived safety).

Essential to incorporate inclusive design.

Community engagement

is key – at all stages, from designing and maintaining to supporting people to use green space – this is especially important to reach more disadvantaged/ excluded groups.

To do this it is vital to understand the barriers to using green space for different communities.

Evidence based principles of successful interventions

There are a number of principles that can be highlighted for successful interventions, these have been identified from literature and from practical examples, such as those highlighted in the accompanying case studies:

- To maximise the potential benefits of green space you may need to take a dual approach of physical improvements to the space alongside social promotion activities.
- Accessibility of green and blue space needs to be considered. This includes the distance from
 home to the nearest green space, as well as the ease of access to the space (Is there a safe walking
 route, including road crossings? Is there public transport? Can those who are less mobile access the
 space?). It is also affected by the facilities provided inside the space and the familiarity of different
 groups with visiting green spaces. It is also important to consider how the capabilities of the local
 community and context might impact accessibility.
- The quality of the green space has a significant impact on benefits. This includes both the ecological quality (planting and biodiversity) and the condition of the space. The types of area that exist, appearance (well maintained, no litter, etc) and facilities are all important. It is essential to include different types of space and offer a variety of activities to ensure that different groups can use and access the space and to maximise a green space's potential. Inclusive design is a key factor when developing a new green space or when revitalising an existing space.



Principles of Successful Interventions For Improving Health Benefits Of Green Space

- Community engagement is key for maintaining green space, maximising use and overcoming inequalities by reaching out to disadvantaged/potentially excluded groups. Community engagement is most effective when it is in place right from the start of projects to inform the design and delivery and help understand barriers, social and cultural issues and perceptions of safety. Outreach and promotion activities are of paramount importance to ensure that urban green spaces are used by a diverse range of population groups and provide a setting for all local residents. These interventions are particularly useful for introducing those with little experience of green space to what is available. It is important to understand the barriers that exist for different groups using green space, as well as a mechanism for breaking down these barriers. Examples of community engagement include:
 - Promotion of green spaces through websites, onsite signs, brochures, etc using sensitively designed promotional messages and materials.
 - Facilitated activities and public events such as family days, sports events, festivals and markets.
 - > Small scale group activities, such as guided walks or green gyms.
 - Collaboration with local organisations to help run and maintain the space, and to plan and design facilitated activities and events.

In addition, there other factors in successful intervention design and delivery that are worth considering:

- Green spaces need sustained investment not just initial capital maintenance and clearly being 'cared for' is important in perceived safety and promoting use
- Interventions require collaboration between different departments and sectors to maximise benefits. These include environment, planning, public health, health care providers and civil society organisations. This requires multi-disciplinary teams and a whole system approach

These are principles that can be applied generally, but contexts vary, so it may not be possible to replicate existing projects in a new setting.

The 'Triple Win'

Successful projects can have a triple win:

- 1. Improve health
- 2. Reduce health inequalities
- 3. Support environmental sustainability

Where these multiple benefits are fully appreciated and evaluated, the costs are more likely to be justifiable.

Case Studies

In this section you will find case studies of good examples of making the most of green space for people's health, part of our Making the Most of Green Space for People's Health resources

Better Places Bradford Case Study

The <u>Better Places Bradford</u> project is working with local people to develop safer and healthier places for expectant parents and families with young children to play and walk, and to increase their access to outdoor spaces.

Cornwall Green Infrastructure Case Study

The <u>Cornwall Green Infrastructure</u> project aims to provide better quality green space for local residents and to address the decline in urban wildlife.

Parks for Health in Camden and Islington Case Study

The <u>Camden and Islington Parks for Health</u> project aims to transform the management of parks and green spaces to ensure they address health challenges.

Dorset Green Health Case Study

The <u>Dorset Green Health</u> project aimed to understand the distribution of publicly accessible green spaces and their accessibility for Dorset's population.

Dorset Stepping into Nature Case Study

The <u>Stepping Into Nature project</u> aims to help older adults, including those living with dementia and their care partners, be happier and healthier by connecting with nature.



Making the most of green space for people's health CASE STUDY BETTER PLACE BRADFORD

What and why?

Research by project partners Born in Bradford showed inequality in the provision of use of green spaces across Bradford. Many expectant parents and families did not have access to suitable green spaces near where they live.

The Better Place project is working with local people to develop safer and healthier places for expectant parents and families with young children to play and walk, and to increase their access to outdoor spaces. Research has shown that satisfaction with local green spaces is dependent on both the structural features of the park (and the amenities available) and the wider social context, including the behaviour of other groups who are using the park.

The project is therefore undertaking both physical improvements to green space, alongside community activities in the parks. In order to do this they have split the patch into an intervention area (receiving improvements immediately) and a 'waiting list' control area (receiving improvements the following year) so that they can compare changes in the health of communities living in an area which have received the improvements with those who haven't.

Location: Bradford, Yorkshire (within the Better Start Bradford area of Bowling and Barkerend, Bradford Moor and Little Horton.)

Partners: Better Place is a Better Start
Bradford project. Better Start Bradford is
funded by The National Lottery Community
Fund and have over 20 projects for pregnant
women and families with children under four.
It is being evaluated in partnership with Born
in Bradford, www.borninbradford.nhs.uk





Stakeholders: The capital projects are delivered by Groundwork or Bradford Council. They also work in collaboration with Public Health, statutory services, voluntary and community groups.







Activities:

- Identifying and overseeing improvements to local parks and outdoor places with the aim of providing a healthier and happier environment for babies, young children and families.
- · Creating safer places to play.
- Developing and publicising good walking routes for families and providing information on where local green spaces are, how to get to them, and what relevant activities can be engaged in with young children in these spaces.
- Aiming to reduce exposure to harmful traffic fumes.
- Encouraging families with very young children to grow their own plants, fruit and vegetables.
- Getting small children and their families out into woodland and countryside through the Forest Schools programme.

Outcomes:

Three capital projects are complete, five are partially finished and another six are planned for the intervention area. A further 13 are due to start September 2020 in the control area.

LINK TO PRINCIPLES OF SUCCESSFUL INTERVENTIONS

Community engagement is at the heart of the project. Community ownership and codesign is central to the ethos of the Better Place project. Local people have been involved from the start with identifying and then developing plans to improve outdoor spaces.

Combination of improving physical spaces with social activities that engage with target communities.

Proactive outreach and promotion activities to target population.

Focus on accessibility of green space, as well as improvements to space.

Contribution to other agendas

The project also aims to improve air quality for the target community and thus links with air quality improvement agenda.

LESSONS LEARNT

- Inner-city communities often need intensive and consistent support to increase their readiness to engage with local greenspaces. Often there are individuals or groups within these communities that are enthusiastic and willing to champion a space or a project. Identifying and nurturing these 'champions' in a community vastly speeds up the process of building community readiness to engage with local greenspaces.
- An effective way to design community codesign methodology is to provide differing levels of engagement for the community to feed into. Organisers can then piece together the evidence like a puzzle to see the bigger picture. Better Place did this by:
 - Having stalls on-site for park users to give their opinions
 - Running workshops in local schools and nurseries
 - Social media engagement
 - Organising 'Steering Groups' for key local community organisations to collate information collected from wider community and synthesise this into final designs.
- Play equipment provision for 0-3s has not been a priority for the Local Authority. This project has raised awareness of the importance of a better start and this will now be included in the local authority Play Strategy.
- Building evidence, through research and evaluation, is a core part of project. The team are working with Born in Bradford to explore whether the investment will improve mental wellbeing and health of local communities.





Making the most of green space for people's health CASE STUDY

GREEN INFRASTRUCTURE FOR GROWTH

What and why?

Cornwall has significant pockets of urban deprivation, including in all the towns chosen for the project. People living in these towns often struggle to access the adjacent coast and countryside, as many people don't have access to a car and public transport links are limited. This increases the importance of quality urban green space for wellbeing, recreation and healthy living.

The project was conceived to provide better quality greenspace for local residents and to address the decline in urban wildlife. The project made substantial improvements to green spaces that were underused and lacking in biodiversity (mainly areas of mown grass with no paths, seating, etc). The spaces were all close to residential areas and aimed to encourage use by local residents and improve biodiversity. The project also aimed to encourage existing uses, such as responsible dog walking and sports to support healthy living.

There was also a focus on developing a range of best-practice maintenance techniques. These will support help to ensure the spaces continue to be looked after, encourage environmental growth and can be used on other public open spaces in Cornwall.



Knights Way Field, Redruth - BEFORE



Knights Way Field, Redruth - AFTER



Location: 32 publicly owned urban green spaces across seven towns in Cornwall (Redruth, Hayle, Penzance, Saltash, Camborne, Pool and Bude)

Partners: Cornwall Council, University of Exeter, local community groups

Stakeholders: Natural England, RSPB, Historic England, Town and Parish Councils, Disability Cornwall, National Trust and local interest groups

Activities:

The design phase of the project took advice from bodies such as Disability Cornwall and local community groups, ensuring socially inclusive access for all. This resulted in better entrances, more path networks and seating as well as provision of information boards.

Activities included introducing new plants, wildflower meadows, trees, orchards, pollinator friendly flower beds and creating hedges and ponds.

Public engagement has been at the heart of the approach. Social engagement and social promotion activities took place in all areas (such as picnic and paint workshops, bulb planting, bug hotel building, seed bomb making and volunteering planting). In all, 152 consultation and engagement events were hosted over the 3 year project. Community partnership s were developed for both the initial work and for ongoing maintenance

The University of Exeter provided expert guidance to the project, using the sites to gather data and providing management plans for their upkeep.

LINK TO PRINCIPLES OF SUCCESSFUL INTERVENTIONS

- Quality of green space improving the quality of unattractive, neglected spaces has significantly changed their use by local communities.
- Dual approach of physical changes and social promotion
- Community engagement has been a key aspect of the project. Social engagement and social promotion activities took place in all areas.

Outcomes:

In total, 32 wildlife and pollinator-friendly areas across seven Cornish towns have been upgraded, covering a total of 40 hectares - an area equivalent to 40 rugby pitches. Local communities are delighted with the improved spaces and usage has increased.

By creating wildflower meadows more natural habitat for bees, trees, bugs and hedgehogs have been created. The green spaces have provided pollinator habitat, shade, valuable flood protection and pollution control as well as making them more attractive and interesting places to relax and spend time.

In September 2019, Green Infrastructure for Growth was the overall winner at the BIG Biodiversity Challenge awards hosted by CIRIA (Construction Industry Research and Innovation Association) for going above and beyond what is expected, creating extensive benefits to biodiversity and being viewed by the judges as being highly replicable.

LINK TO OTHER AGENDAS

This programme is linked to Cornwall's Environmental Growth Strategy and contributes to Cornwall Council's climate change action plan for promoting biodiversity, capturing carbon and encouraging people to get out into nature more.

The sites will be routinely maintained through Cornwall Council's existing annual public open space maintenance programme. The local authority will benefit economically as sites require less intensive maintenance (twice yearly cuts of wildflower meadows compared to 8 cuts a year for grass).

For more information see www.cornwall.gov.uk/GI4G
Green Infrastructure for Growth funders and partners -











Making the most of green space for people's health CASE STUDY

PARKS FOR HEALTH CAMDEN AND ISLINGTON

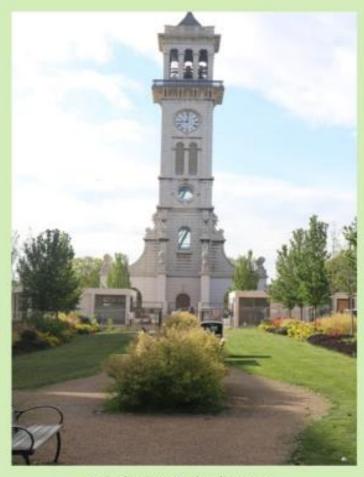
What and why?

Parks for Health is a major two-year programme running from May 2019 to May 2021 to transform the parks and green spaces in Camden and Islington for now and future generations. The programme aims to transform the management of parks and green spaces to ensure they address health challenges. Green spaces will change from being passive health enablers to take an active and central role in delivering improvements to health and wellbeing across both boroughs.

The project was developed to address local health priorities including high levels of mental ill-health, physical inactivity and health inequalities, and to increase social cohesion and respond to social isolation.

The most affluent residents in Islington and Camden can expect to live healthily for more than a decade longer than the most deprived residents. Taking full advantage of the potential of parks will bring benefits for all and is vital in helping to tackle this disparity.

Helping more people to use the available green spaces will increase physical activity levels (particularly those living in our less affluent areas and at risk of poorer health), improve physical and mental wellbeing, mitigate long-term health conditions and reduce social isolation and loneliness.



Caledonian Park Islington St Pancras Gardens Camden



Location: Camden and Islington, London

Partners: Parks for Health is led by Camden and Islington Councils, and Camden and Islington Public Health.

Stakeholders: The Future Parks Accelerator is a collaborative venture between The National Lottery Heritage Fund and the National Trust, with financial support from local authorities, the Ministry of Housing, Communities and Local Government, and the Greater London Authority.

Project Aims:

- Develop a new infrastructure to deliver health-focused green space provision.
- Develop closer links between parks and the NHS, health providers and doctors.
- Build a strong understanding of the community infrastructure to enable engagement with, and pathways into, social networks.
- Produce a baseline assessment of the current health opportunities of the area's green spaces.
- Identify and test innovative opportunities in the active use of green space for wellbeing.

The project aims to ensure parks are inclusive, attractive and accessible for all, reaching those with greatest needs and building partnerships with the wider health and voluntary sectors to ensure parks and green spaces are seen as central to a happy and healthy Camden and Islington.

LINK TO PRINCIPLES OF SUCCESSFUL INTERVENTIONS

Cross discipline engagement of health and environment systems is the biggest achievement to date.

Community engagement will be key to the project.

Dual approach of physical changes and social promotion activities. This project is less about physical changes and more about the creation of new activities within the parks to make the most of the available spaces and the promotion of these and existing activities that address the local health priorities, transformation of the workforce to support this work, and engagement with the health and voluntary sectors so that our parks are central to good health in Camden and Islington.

Outcomes (to date):

- Secured senior level and political buy in.
 The project board includes senior
 councillors and officers from both
 councils. Supported by a project steering
 group, it includes heads of greenspace for
 the two councils.
- A green social prescribing pilot has been set up at the initiative and with the support of Defra. The six-month project has created two action plans to introduce social prescribing in two specific parks and across the two boroughs. They have been created with the input of the local health sector and social prescribing referral organisations.
- The Parks Challenge took place in late 2019. Officers from the National Trust visited over 40 parks across the two boroughs and talked to many Friends of Parks groups and parks staff, to look at how parks are run and could be improved. Their recommendations about the visitor experience, communications, staff and volunteering feed into our work.
- The project will also be complemented by a valuation of the social and economic value of the local green infrastructure.
- A toolkit has been drafted that examines the health assets of the individual parks in the two boroughs.







Making the most of green space for people's health CASE STUDY STEPPING INTO NATURE, DORSET

What and why?

For a variety of reasons, older people and those living with dementia and and their carers can find it hard to visit natural environments and thus receive the health benefits that engaging with nature can provide.

Stepping into Nature aims to help people be happier and healthier by connecting with nature. It uses Dorset's natural and cultural landscape to provide activities and sensory rich places for older adults, including those living with dementia and their care partners. Its nature-themed activities – both indoors and out – help people find new places to go, learn new skills and meet like-minded people.

It offers a wide range of dementia inclusive activities across different locations.



Sing and Stroll

Poetry at Dorchester Memory Cafe



Location: Across Dorset

Partners: Dorset AONB, Public Health Dorset, Dorset Council

Stakeholders: Activities were delivered by a consortium of environment and cultural organisations, freelancers and community groups supported by the SiN core team.









Activities:

Stepping into Nature works with a range of activity providers such as Dorset Wildlife Trust, Dorset Forest School and Dorset History Centre to support and fund the delivery of inclusive activities inspired by or within nature. Activities have included, but are not limited to, village walks, poetry sessions, green woodwork and gardening.

From 2017 – 2020, 474 dementia friendly nature-based activities have been delivered through a range of partners involving 827 participants.

There has been a focus on improving inclusivity through improved access to nature as well as addressing mental barriers such as fear of the unknown for the targeted audience, of older people and those living with dementia and their carers, as this was identified as a key barrier.

Provides funding for communities and organisations to help create more "Dementia Friendly", inclusive, accessible and enjoyable green spaces.

Supports staff and volunteers, particularly those within environmental organisations, to become dementia friendly so that they are better equipped to provide activities for the target audience.

LINK TO PRINCIPLES OF SUCCESSFUL INTERVENTIONS

Social promotion activities.

Community engagement.

Cross discipline engagement of health and environment systems.

For more information:

www.stepin2nature.org

Outcomes:

Increased connection and time in nature for participants. Increased health and wellbeing of participants and increased life skills.

Provided opportunities for social connection and involvement for participants.

Provided informal respite for carers and supported carer-partners relationships.

Training and support provided to activity providers by the project, which has increased the activity providers' awareness, confidence and capacity to deliver to the target audience.

Adapted the location, time, days and types of activities after evaluation to ensure the activities are accessible to as many people as possible.

LESSONS LEARNT

- The project found that people living with dementia and their carers were a hard to reach group. The language used in promoting activities proved very important and influenced the number of people taking part in activities.
- A combination of social interaction and active participation was where people saw the most positive difference for people with dementia and their carers.
- Limited transport or mobility prevents many people from accessing green space, therefore important to have locally accessible dementia friendly outdoor activities.
- Encouraged co-ordination between the environment and health sectors. A longer term aim is to forge new partnerships with the health sector in Dorset and linking more closely with social prescribing.





Making the most of green space for people's health CASE STUDY

DORSET GREEN HEALTH

MAPPING ACCESS TO GREENSPACE IN DORSET

WHAT AND WHY?

Natural environments support a range of health and wellbeing benefits. Good accessibility, including the availability of local spaces and the provision of safe walking routes for travel to and between them, is an important factor in people's uses of natural environments.

Despite wide recognition of the quality of Dorset's natural environments, it was not clear how accessible they were: particularly to rural populations, who are frequently overlooked in studies of natural environment accessibility.



The Healthy Places Dorset Green Health access to greenspace mapping and data interface

Aims

The project aimed to understand the distribution of publicly accessible greenspaces and their accessibility for Dorset's population. It linked multiple datasets and used mapping software to measure the distance, by foot, to a greenspace or accessible green path for each postcode in the two local authority areas covered by Public Health Dorset (Bournemouth, Christchurch and Poole Council and Dorset Council).

A key goal of the project has been to produce a resource which is useful, tailored and applicable to a wide range of stakeholders from the local health and environment sectors. A number of consultations were conducted with potential users across local government, including planning and greenspace managers, environmental, health and with a number of third sector organisations.



Location: Dorset (including Bournemouth, Christchurch and Poole and Dorset Council areas)

Partners: Public Health Dorset, University of Exeter

Other Stakeholders: BCP Council, Dorset Council, Dorset Local Nature Partnership

Funding: Public Health Dorset

LINK TO PRINCIPLES OF SUCCESSFUL INTERVENTIONS

Importance of accessibility – not just distance but ease of access through safe walking routes.

Stakeholder consultations were a key part of the initial process, to understand from potential users across local government (including planning and greenspace managers, environmental and health) and third sector organisations.

CONTRIBUTION TO OTHER AGENDAS

Dorset green health can inform the development of local plans by highlighting areas of need for enhanced greenspace provision and thus contribute to reducing health inequalities.



Supporting the identification of networks for active travel 'green corridors'



climate change and ecological emergency response through both mitigation (e.g. supporting low-carbon access to greenspace) and adaptation (e.g. identifying opportunities for changing greenspace management to support biodiversity).



Outcomes:

- A compiled database of publicly accessible greenspace throughout Dorset, Bournemouth and Poole.
- Accompanying access points for the greenspaces – this shows where pedestrians can enter greenspaces.
- A network of walking paths throughout the county.
- It is now possible to identify communities in both urban and rural areas where people have poorer access to greenspaces. The data will now be used to evaluate whether Dorset meets greenspace accessibility standards such as Natural England's ANGST or the WHO recommendation.
- The maps will also be used by a range of different organisations to target interventions to improve use and enhance the benefits of greenspace. These projects could include: improving connectivity of greenspaces, installing signage to create local circular routes through, or to, greenspaces, or working with underserved communities to identify what they need.

LESSONS LEARNT

- Supporting the creation and maintenance of a high quality greenspace data set requires capacity and involvement from different partners, but a coordinated approach can support multiple agendas.
- Travel time to greenspace is a useful measure of greenspace accessibility, but it's value could be increased with better understanding of greenspace quality.



Dorset Green Health







Supporting Documents and Research Papers

In this section you can find key pieces of evidence used to create our <u>Making the Most of Green Space</u> for People's Health guidance.

Additional evidence can be found elsewhere on the <u>Beyond Greenspace</u> blog, including <u>links to reports</u> and evidence summaries, <u>published papers</u> by the team at ECEHH and their collaborators, and other forms of <u>useful resources</u>.

Key reports and policy

POLICY AND POSITION PAPERS, GUIDANCE AND EVIDENCE SUMMARIES

- WHO (2017) <u>Urban green spaces: a brief for action.</u> Copenhagen, World Health Organisation Regional Office for Europe
- Public Health England "Improving access to greenspace: A review for 2020" (Coming soon).
- DEFRA (2018) <u>25 Year Plan for the Environment HM Government</u>
- TCPA, NHS, PHE, King's Fund, Young Foundation (2019) Putting Health into Place
- Dorset Local Nature Partnerships (2018) Position Paper on Natural Health
- Public Health England and UWE (2019) <u>Spatial Planning for Health: an evidence resource for planning and designing healthier places</u>
- Bird, Ige, Burgess-Allen, Pinto, & Pilkington (2019) <u>Health People Healthy Places Evidence Tool Evidence and Practical Linkage for Design, Planning, Policy and Health</u>. UWE
- H2020 Inherit Project Briefs on integrated governance, behaviour change, and health equity
- Valuing Nature Programme IWUN Project (2019) Policy & Practice Briefs
- NESTA <u>Rethinking Parks</u> National Lottery Community and Heritage Funds
- Public Health England (2020) <u>Using the planning system to promote healthy weight environments</u> TCPA, Sport England, FUSE, RSPH, Canal and River Trust, CEDAR
- Sport England (2015) <u>Designing for Physical Activity: Exploring opportunities to encourage physical activity in everyday life</u>
- Heritage Fund (2020) Space to Thrive
- Marmot, Allen, Boyce, Goldblatt, and Morrison (2020) <u>Health Equity in England: Marmot Review 10</u>
 Years

Supporting Documents and Research Papers

Selected systematic reviews

Systematic reviews are a robust way of bringing together the evidence on specific topics. They are often more helpful to consider than single research studies alone, as they assess the current pool of knowledge on the topic, and can highlight where there are uncertainties or inconsistencies in the evidence.

SYSTEMATIC REVIEWS ON THE LINKS BETWEEN PHYSICAL HEALTH AND GREEN SPACES

- The health benefits of the great outdoors: A systematic review and meta-analysis of greenspace exposure and health outcomes C Twohig-Bennett, A Jones. Environmental Research, Vol 166, 2018
- The relationship between greenspace and the mental wellbeing of adults: A systematic review V Houlden, S Weich, J Porto de Albuquerque, S Jarvis, K Rees, PLOSone, 2018
- Mental health benefits of interactions with nature in children and teenagers: a systematic review S Tillman, D Tobin, W Avison, J Gillilan, Journal of Epidemiology and Community Health, Vol 72, Issue 10, 2018
- Residential green spaces and mortality: A systematic review. Gascon, M., Triguero-Mas, M., Martínez, D., Dadvand, P., Rojas-Rueda, D., Plasència, A., & Nieuwenhuijsen, M. J. Environment International, 86, 60-67. 2016
- Outdoor blue spaces, human health and well-being: A systematic review of quantitative studies. Gascon, M., Zijlema, W., Vert, C., White, M. P., & Nieuwenhuijsen, M. J. International Journal of Hygiene and Environmental Health. 220(8):1207-1221. 2017
- The health benefits of the great outdoors: A systematic review and meta-analysis of greenspace exposure and health outcomes. Twohig-Bennett, C., & Jones, A. Environ Res, 166, 628-637. 2018
- <u>Health Benefits of Green Spaces in the Living Environment: A Systematic Review of Epidemiological Studies</u>. van den Berg, M., Wendel-Vos, W., van Poppel, M., Kemper, H., van Mechelen, W., & Maas, J. Urban Forestry & Urban Greening, 14(4), 806-816. 2015
- The effect of short-term exposure to the natural environment on depressive mood: A systematic review and meta-analysis. Roberts, H., van Lissa, C., Hagedoorn, P., Kellar, I., & Helbich, M. Environ Res, 177, 108606. 2019

SYSTEMATIC REVIEWS ON GREEN SPACE BENEFITS THROUGH THE LIFE COURSE

- <u>Long-Term Green Space Exposure and Cognition Across the Life Course: a Systematic Review.</u> de Keijzer, C., Gascon, M., Nieuwenhuijsen, M. J., & Dadvand, P. Current Environmental Health Reports, 3(4), 468-477. 2016
- Mental, physical and social health benefits of immersive nature-experience for children and adolescents: A systematic review and quality assessment of the evidence. Mygind, L., Kjeldsted, E., Hartmeyer, R., Mygind, E., Bølling, M., & Bentsen, P. Health & Place, 58, 102136. 2019

Supporting Documents and Research Papers

- Mental health benefits of interactions with nature in children and teenagers: a systematic review. Tillmann, S., Tobin, D., Avison, W., & Gilliland, J. (2018). J Epidemiol Community Health, 72(10), 958-966. 2018
- Impact of Green Space Exposure on Children's and Adolescents' Mental Health: A Systematic Review. Vanaken, G. J., & Danckaerts, M. Int J Environ Res Public Health, 15(12). 2018
- <u>Long-Term Exposure to Residential Greenspace and Healthy Ageing: a Systematic Review.</u> de Keijzer, C., Bauwelinck, M., & Dadvand, P. Current Environmental Health Reports, 7(1), 65-88, 2020
- The relationship between greenspace and the mental wellbeing of adults: A systematic review. Houlden, V., Weich, S., Porto de Albuquerque, J., Jarvis, S., & Rees, K. (2018). Plos One, 13(9), e0203000. 2018

SYSTEMATIC REVIEWS ON THE DESIGN, SITING AND QUALITIES OF GREEN SPACES

- <u>School Green Space and Its Impact on Academic Performance: A Systematic Literature Review.</u> Browning, M., & Rigolon, A. Int J Environ Res Public Health, 16(3). 2019
- <u>A systematic review of multi-dimensional quality assessment tools for urban green spaces</u>. Knobel, P., Dadvand, P., & Maneja-Zaragoza, R. Health & Place, 59, 102198. 2019
- Spatial dimensions of the influence of urban green-blue spaces on human health: A systematic review. Labib, S. M., Lindley, S., & Huck, J. J. Environ Res, 180, 108869. 2020
- Public open space characteristics influencing adolescents' use and physical activity: A systematic literature review of qualitative and quantitative studies. Van Hecke, L., Ghekiere, A., Veitch, J., Van Dyck, D., Van Cauwenberg, J., Clarys, P., & Deforche, B. Health & Place, 51, 158-173. 2018
- <u>A systematic review of access to green spaces in healthcare facilities.</u> Weerasuriya, R., Henderson-Wilson, C., & Townsend, M. Urban Forestry & Urban Greening, 40, 125-132. 2019

£370 million

saved by greenspace in London alone, by contributing to better mental health



A NOTE ON COVID-19

This work was mainly developed prior to the COVID-19 pandemic. There are clearly implications of the pandemic and control measures for the ways in which public open spaces are managed for the benefit of public health whilst maintaining safety and protecting our natural environments. This work does not deal with these issues specifically, but a wide range of other resources have been developed during this time, for example:

- Midlands Parks Forum COVID-19 Survey
 www.midlandsparksforum.co.uk/information-request-for-uk-government/
- <u>Fields in Trust COVID-19 Knowledge Base</u>
 www.fieldsintrust.org/knowledge-base/Covid19
- <u>cfp Response to COVID-19</u>
 www.cfpuk.co.uk/response-to-covid-19/

There are also some very important implications of the pandemic that are likely to amplify inequalities in access to green/blue space and the opportunities it provides:

- <u>Covid-19 has highlighted the inadequate, and unequal, access to high quality green spaces</u> BMJ blog from Selena Gray and Alan Kellas
 - www.blogs.bmj.com/bmj/2020/07/03/covid-19-has-highlighted-the-inadequate-and-unequal-access-to-high-quality-green-spaces/
- What is the value in local outdoor space for our mental health and wellbeing?- NIHR blog from Sarah Rodgers
 - www.nihr.ac.uk/blog/what-is-the-value-in-local-outdoor-space-for-our-mental-health-and-wellbeing/25019

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