



Greening the City

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Belfast Healthy Cities is a partnership organisation providing a platform for intersectoral collaboration to improve health and wellbeing for the Belfast population. Belfast has been a leading city within the World Health Organization (WHO) European Healthy Cities Network since 1988. A key role for Belfast Healthy Cities is to support partners in the city by providing evidence, capacity building and piloting new approaches and ways of working to improve health and wellbeing and reduce health inequalities. Belfast Healthy Cities programme on greening the city recognises the existing work in this area and will support a joined up and integrated approach that promotes stakeholder collaboration and community engagement in the design, delivery and use of these spaces. This will seek to create mutually beneficial relationships between citizens and the urban environment for improved physical and mental wellbeing.

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Foreword

As most of the global population now live in cities, it is more important now than ever that urban infrastructure is improved to support a higher quality of life for the growing populations in cities. Protecting the planet is one of the world's greatest priorities and the current COVID-19 experience is one of today's many global health challenges and comes on top of an even greater climate and environmental crisis. A prosperous economy and society can be achieved that also safeguards the common good, improving the quality of the air and stopping irreversible damage to the natural habitats on which protecting human health depends.

The World Health Organization (2017b) highlight that green spaces and other natural green and blue features can offer innovative solutions to increase the quality of urban settings, improve resilience, and promote sustainable lifestyles to deliver benefits to both the physical and mental health and wellbeing of residents. These features can help ensure that:

- **citizens have adequate opportunities for exposure to nature;**
- **nature is maintained, protected and enhanced.**
- **environmental hazards such as air pollution or noise are reduced, leading to reduced levels of asthma and improved mental well-being amongst the population, particularly amongst children.**
- **the impacts of extreme weather events such as heatwaves, extreme rainfall or flooding are mitigated.**
- **overall, the health and well-being of residents is improved.**

It is therefore important to ensure that these spaces and features are distributed fairly, and that everyone has access to them, particularly communities who experience inequalities.

The COVID-19 pandemic has provided a stark reminder of the importance of urban green and blue spaces, including parks, pocket parks, greenways, beaches, rivers and canals for population health and wellbeing. Cities can choose investments that can develop healthier, safer paths to be in a better place and hold on to the harmony this crisis has inspired.

Green and blue spaces and features are an integral part of the infrastructure of Belfast and opportunities exist to consider how these can be integrated across the city, to help improve people's health and wellbeing, and reduce health inequalities.

Increasing physical activity through increased availability and use of green space can have significant impact on many health issues, including obesity and can reduce long term associated health problems, including heart disease, diabetes, strokes and cancer.

Belfast Healthy Cities programme on greening the city recognises the existing work in this area and will support a joined up and integrated approach that promotes stakeholder collaboration and community engagement in the design, delivery and use of these spaces. This will seek to create mutually beneficial relationships between citizens and the urban environment for improved physical and mental wellbeing. We are very grateful to the partners and organisations who have informed the development of this programme and continue to support its delivery and we look forward to continuing to work with all partners.



Joan Devlin
Chief Executive

Introduction

Belfast Healthy Cities Strategic Plan sets out 'greening the city' as a key programme for the organisation during Phase VII (2020-2025) of the World Health Organization (WHO) European Healthy Cities Network, to support the themes of Place, Planet, Participation, People, Prosperity, and Peace. The goal of the programme is to create mutually beneficial relationships between citizens and the urban environment for improved physical and mental wellbeing.

Underpinning the overarching goal of the greening the city programme are four strategic objectives that Belfast Healthy Cities have committed to working towards. These are to:

1. **Promote inclusive green environments for all, increasing physical activity and mental wellbeing to reduce the risk of long term disease.**
2. **Encourage the greening of public spaces to mitigate the consequences of climate change, support bio-diversity, and increase recognition that trees and other vegetation are critical urban infrastructures.**
3. **Increase stakeholder collaboration and community engagement in the design of green spaces.**
4. **Promote green space interventions to reduce health inequalities.**

To aid in the development of this programme Belfast Healthy Cities undertook a scoping exercise. This sought to assess the current understanding and uptake of the greening the city agenda, and identify the priority actions for the organisation to consider taking forward.

From conversations with stakeholders, a reoccurring theme was the need to support the development and sharing of evidence that draws out the connections between the greening the city, health and inequalities. To begin to address this gap, Belfast Healthy Cities have developed this evidence paper. It draws together documents published by the WHO and relevant local and regional policies and strategies.

The highlights of the evidence paper are provided below. These can be used to support stakeholders to:

- **Develop a common understanding of greening the city, and the links to health and wellbeing, and inequalities.**
- **Justify and improve actions, policies and strategies that support the provision, enhancement, and use of green and blue spaces and features in Belfast.**

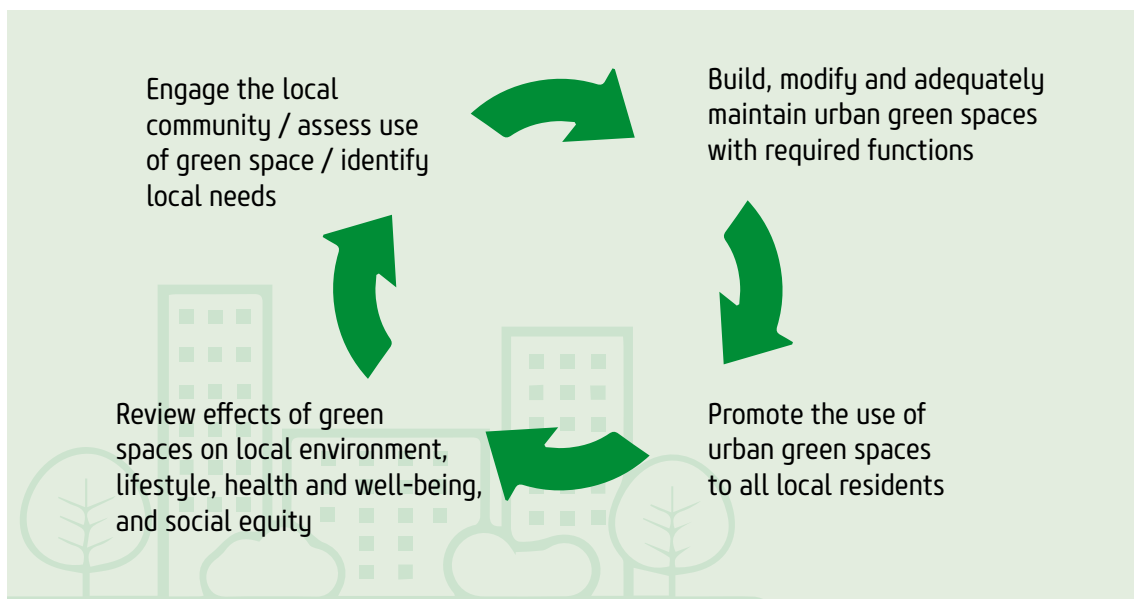


What is greening the city?

The WHO (2017b) sets out that green spaces are necessary features of a healthy place, and that the benefits of this infrastructure can be maximised through adequate planning, design and evaluation.

The WHO (2017b) provides an iterative cycle for green space actions. This involves engagement with the local community to assess the use of green spaces and identify local needs. Followed by actions to build, modify and adequately maintain green spaces, the promotion of its use to all residents, and a review of its effectiveness on health, wellbeing and social equity.

Figure 1: Green space action cycle (WHO,2017b)



The WHO Brief for Action for Urban Green Spaces (2017b), Global Action Plan on Physical Activity (2018), and Manifesto for a Healthy and Green Recovery from COVID-19 (2021), all highlight the need to strengthen access to good quality green spaces and networks for everyone.

How do we define greening the city?

The WHO (2016) recognises the definitions of greening the city are nuanced and specific to context. It can include natural surfaces and settings, specific types of urban greenery, such as street trees, alongside blue spaces which represent water elements (WHO, 2016). The WHO (2016) highlight the most common definitions of green spaces in urban areas tend to involve areas used predominately for recreational purposes such as public parks, but may also include children’s play areas, non-amenity areas such as road verges, woodlands, riverside footpaths, and private gardens. At the local level, the most inclusive interpretation of greening the city seems to be green and blue infrastructure. This involves all natural and semi natural land cover, including water (BCC 2020a).



What indicators are used to measure greening?

Broadly speaking, there tends to be three overarching indicators that researchers and decision makers use to measure the extent of greening in cities.

- 1) The most common indicator is availability. This usually refers to the quantity of green spaces or features, and is considered as the proportion of an area covered by greenery or green spaces, or the amount of green space provided per person (WHO, 2016). This indicator can also be broken down into the availability of different typologies.
- 2) The second indicator tends to be how accessible green spaces are. This can be measured by whether a green space is available for public use, the distance between green spaces and where people live or work, and the perception from residents on the distance between them and nearby green spaces (WHO, 2016).
- 3) The third tends to be the use of green spaces. This includes understanding how these spaces are used, when and by who (WHO, 2016).

There are also additional indicators that can be used to measure green spaces, such as quality or features (WHO, 2016). However, the WHO (2016) highlight there is limited evidence that focuses on these aspects of green space and the associated connections to health and wellbeing.

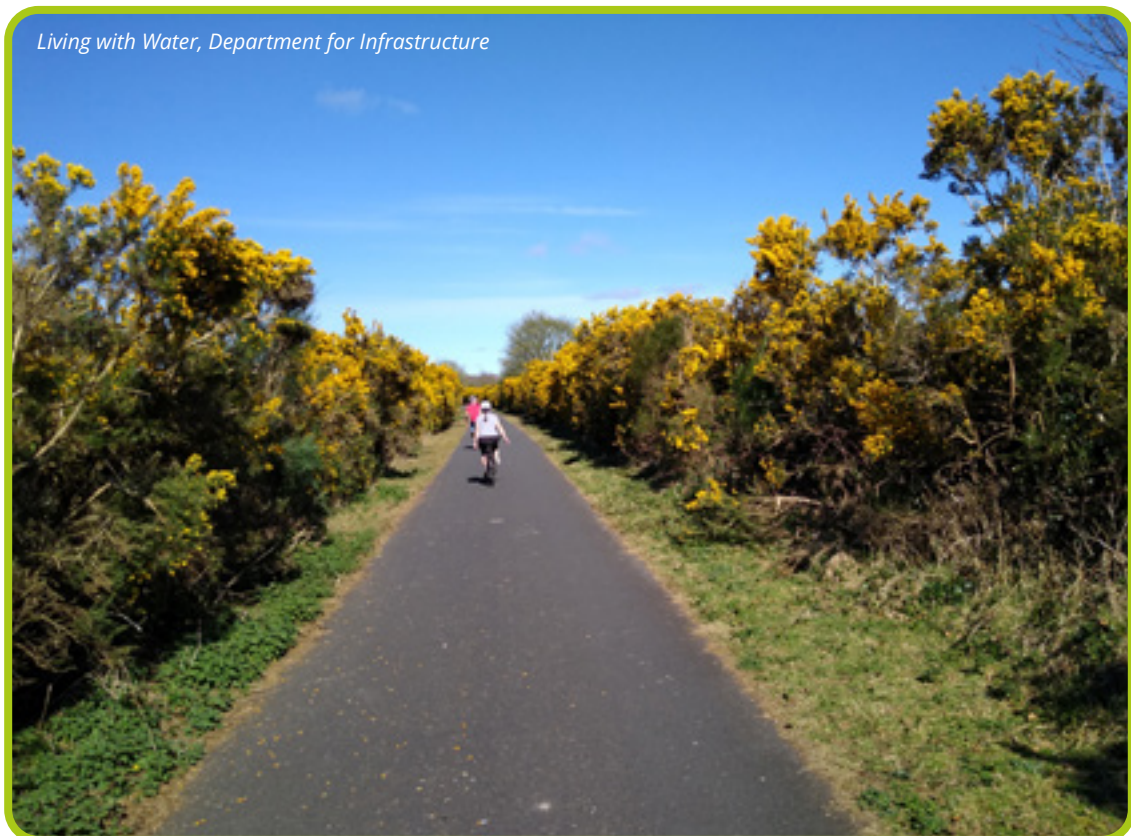


Living with Water, Department for Infrastructure

Why is greening the city important for health and wellbeing?

The WHO (2016) highlight specific health and wellbeing improvements that arise due to the provision and use of green spaces that have been supported by evidence are:

- Improved mental health, reduced stress, and improved cognitive function.
- Lower death rates, particularly from respiratory and cardiovascular diseases. This includes reduced risk of dying from stroke, and higher survival rates after ischemic stroke.
- Reduced prevalence of people with cardiovascular related illnesses. With evidence suggesting walking in a park has a greater effect on reducing heart rate and diastolic blood pressure than walking in a busy urban street.
- Reduced prevalence and chance of having type 2 diabetes.



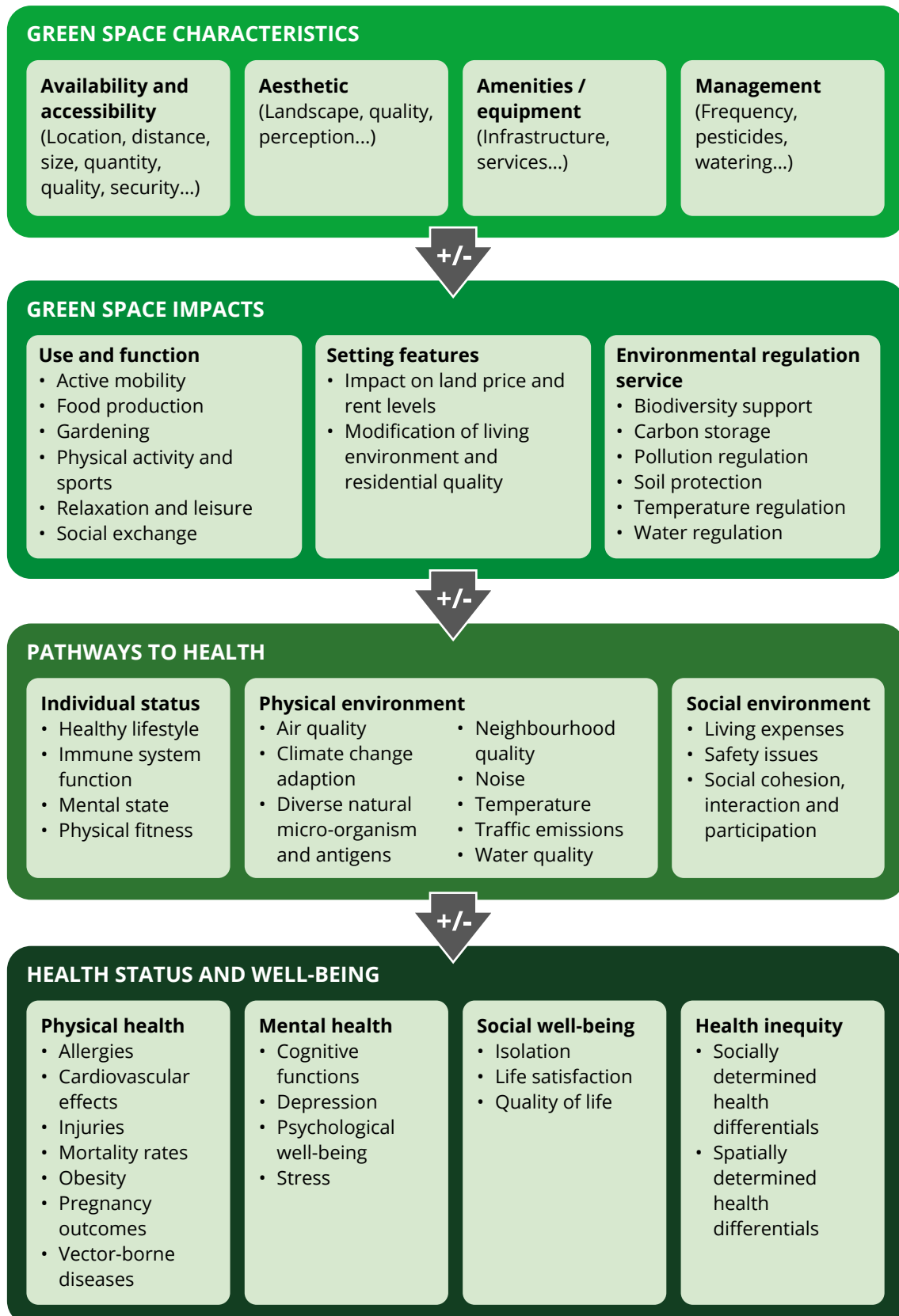
The WHO (2016) also recognise green spaces can regulate the environment to help address air pollution, climate change adaption, diversity of nature, and neighbourhood quality and noise. This is further drawn out with a more recent emphasis from the WHO (2021) on the interconnections between nature, biodiversity and health. The WHO (2021) highlight nature provides the basic conditions for and helps protect human health. This involves managing air quality and mitigating extreme events (WHO, 2021). Conversely, the WHO (2021) also highlights that pressure on the natural environment can threaten the health of people, such as the increased frequency of natural disasters. As such, the WHO (2021) provides a series of recommendations for decision makers to take forward.

These include to:

- **Promote and enhance natural ecosystems.**
- **Embed nature based approaches into policy development.**
- **Build capacity to deliver integrated strategies for health and the environment (WHO, 2021).**

Some of these links between green spaces and health and wellbeing are shown in Figure 2.

Figure 2: A causal model of the impacts of urban green spaces on health and wellbeing (WHO, 2016)



What are the links between inequalities, greening and health?

The WHO (2016) highlights there is evidence to suggest different health and wellbeing benefits for marginalised groups such as women, children, older adults, and deprived or minority groups. For example, providing women with access to serene green spaces has shown a more significant relationship to improved mental health and reduced stress when compared to the effects seen for men (WHO, 2016). Similarly, for children, at the earliest stages of growth, during in utero development, the evidence suggests there is a positive link between a mother's exposure to green spaces and increased birth weights (WHO, 2016). For older adults, access to green space is also linked to stronger protective effects against sleep deficiencies and the promotion of social connections (WHO, 2016).

The WHO (2021) also recognises there tends to be an unequal provision and use of green spaces, alongside an unfair distribution of environmental health risks, particularly amongst low income, minority and marginalised communities.

These differential impacts can be seen in Northern Ireland. The provision of green space and off road trails, for example, is unequal (ORNI, 2021). 29% of people stated they do not have green spaces within easy walking distance; with women, unemployed individuals, people with disabilities, primary school age children, and residents in rural areas providing the lowest rating for local green spaces, paths and trails, including lowest perceptions of quality and accessibility.

In addition, the frequency of participation in outdoor recreation decreases as levels of deprivation increase. Only 50% of those living in the most deprived neighbourhoods typically took visits at least once a week, compared to 82% of those in the least deprived areas (ORNI, 2021). In addition, respondents that identified as unemployed, with no car, in the least affluent socio-economic groups and with disabilities took the fewest visits to outdoor spaces (ORNI, 2021). These groups, alongside women and older people, also reported a reduction in the time spent outdoors due to COVID-19 (ORNI, 2021).



In order to realise the direct and indirect benefits to health and wellbeing, the evidence suggests a need to focus on ensuring everyone has access to, and is using, green and blue spaces and infrastructure. This should occur alongside prioritising interventions that benefit marginalised groups, such as those that are socially or economically deprived, children, elderly people, those with disabilities, or women.

How can communities and stakeholders support greening for health?

The WHO (2017a; 2017b) highlights stakeholder collaboration and community engagement are important elements in realising the health and wellbeing benefits arising due to the provision of green spaces. This involves the creation of diverse, multi-disciplinary and cross-sector teams. The WHO (2017a; 2017b) identifies best practices for stakeholders include working together to develop a clear, integrated vision for green spaces, support key actors to advocate for improvements to these areas, secure leadership among decision-makers to deliver these interventions, and to work with academic institutions and others to aid the monitoring and evaluation of these projects.



The WHO (2017a; 2017b) also recognises best practice involves community engagement during the design, delivery and maintenance of green spaces. This can help to provide an understanding of the needs and demands of communities, including both users and non-users, and help support targeted interventions for specific groups of the population (WHO, 2017b). Suggestions include engaging early with user groups and local neighbourhood communities, providing adequate information and opportunities for participation, supporting local champions to advocate and promote the use of green spaces, and collaborate with local communities to run and maintain green spaces, such as urban gardening and allotments (WHO, 2017a; 2017b).

Existing strategies and plans relevant to greening the city in Belfast include: Belfast Green and Blue Infrastructure Plan 2020 (BCC, 2020a), Belfast Open Spaces Strategy (BCC, 2020b), Climate Plan for Belfast (BCC, 2020c), Living with Water in Belfast Plan (DfI, 2021), All-Ireland Pollinator Plan 2021-2025 (NBDC, 2021), and Consolidated COVID-19 Recovery Plan (EO, 2021). Emerging documents include Belfast City Council's draft Local Development Plan (2018), draft Belfast Air Quality Action Plan (BCC, 2021a), Bolder Vision for Belfast (BCC, 2021b), draft Green Growth Strategy (DAERA, 2021a), draft Environment Strategy (DAERA, 2021b), and City Quays Gardens (Belfast Harbour, 2021).

Key messages

- 1) The most inclusive interpretation of greening the city in Belfast is green and blue infrastructure, which recognises the multiple uses and benefits of these spaces. The most common definitions tend to refer to areas used for recreational purposes. For Belfast Healthy Cities, the definition of greening the city encompasses improving the provision and use of green and blue features and spaces to maximise the benefits to health and wellbeing, and reduce health inequalities across Belfast.

- 2) The quantity, access, and use of green spaces are not uniform and link to health inequalities. In particular:
 - A. Green spaces and green and blue infrastructure tends to be distributed unfairly. Areas of higher health deprivation tend to have lower levels of green space provision and access. Some of these links can be seen across Belfast.
 - B. Marginalised groups, such as women, children, older adults, and deprived or minority groups, tend to use green spaces less. Decision makers may wish to aim to involve these voices at the earliest stages of an initiative to understand why this may be the case, and what can be done to include and support these individuals.
 - C. Exposure to environmental risks to health, such as air pollution or climate change, and the associated poorer health outcomes, tends to be greater for marginalised groups.
 - D. The greatest direct and indirect benefits to health and wellbeing associated with the provision and use of green spaces and green and blue infrastructures tend to be seen with marginalised groups.

- 3) The connections between the provision of green spaces and improvements to physical and mental health and wellbeing are supported by evidence from the World Health Organization, and research being undertaken in Northern Ireland, with the biggest benefits seen when people use these spaces. These interventions are being considered and taken forward by local and regional decision makers. Throughout, there will be a need for stakeholders and communities to collaboratively plan, design, deliver, manage, and evaluate the effectiveness of greening the city interventions.

The evidence paper and this summary can support stakeholders to shape the current and emerging strategies, policies and actions to enhance the provision and use of green and blue spaces and features. Alongside helping to better realise the associated benefits to health, wellbeing and reduced health inequalities in Belfast.

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