

The People's Palace opened in 1898 to serve as a cultural centre for Glasgow's East End, a historically unhealthy and overcrowded area. It exemplifies how urban green spaces offer health benefits through recreation, education and social interaction. Discuss how greenspaces can still be utilised to reduce the risk of non-communicable diseases.

Non-communicable diseases are defined by the World Health Organisation (WHO) as diseases that “tend to be long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors.” (WHO, 2024a). An important disease type that falls under this umbrella is mental health which can be affected by both environmental and behavioural factors. It is imperative that action is taken to improve mental health as “1 in 4 people are estimated to experience a mental health problem at some point in a year” (Mind, 2024) and the results of recent survey by the UK Mental Health Charity Mind that “adults and young people say their wellbeing is getting worse” (Mind, 2024).

Green spaces can alter one’s environment and behaviour and improve feelings of belonging and enable social interaction (Chen, 2021), both of these play a role in enhancing mental wellbeing and can reduce the incidence of mental health related non-communicable diseases.

The People’s Palace in Glasgow, when built, specifically enabled year-round benefits in this way this as it contained a ‘winter garden’ enclosed in a glass conservatory for continuous community enjoyment in any weather. In the present day it is still important to utilise green spaces to their full potential year-round. In order to improve mental wellbeing, it is necessary to capitalise on specific aspects of green spaces that directly increase feeling pertaining to

social cohesion. Ways to achieve this include improving the quality of green spaces – meaning that more people are likely to want to spend more time in them, and by hosting community-based events – meaning people have reasons to engage with others and feel included within their community (Barnes, 2025). Both of these initiatives work to enhance feelings of community and therefore improve mental wellbeing – reducing the risk of both mental (and physical) non-communicable diseases.

This essay will focus primarily on how green spaces can be utilised to improve mental health. Mental health is both important in its own right as well as potentially being a root cause for other physical non-communicable diseases (Geneshka, 2021). Poor mental wellbeing can lead to an increase in habits that are risk factors for such diseases (e.g. consuming alcohol, taking drugs, not eating healthily), therefore, improving mental health by utilising green spaces, could in turn decrease the risk of some physical non-communicable diseases.

It can be shown that mental wellbeing and time spent in green spaces are correlated as shown in Figure 1.

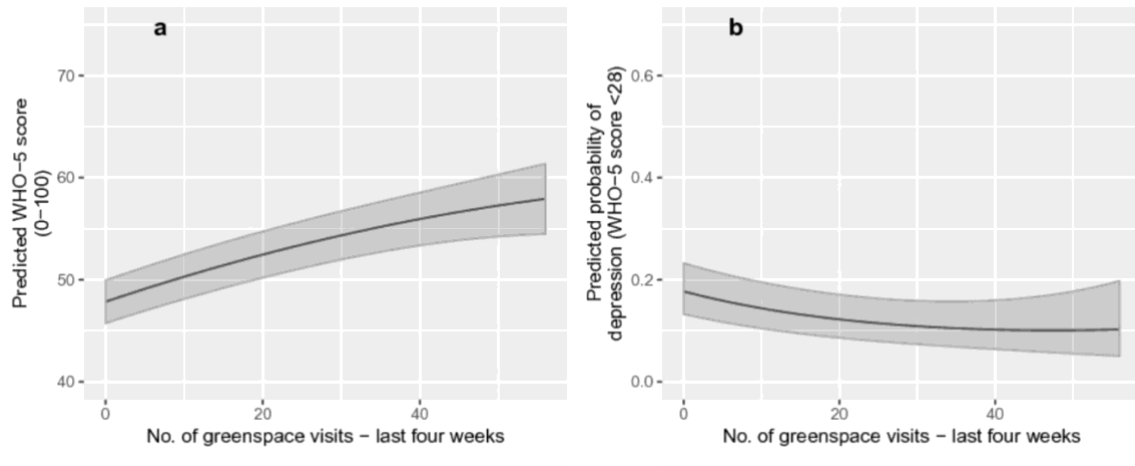


Figure 1: Graphs taken from paper (White, 2021) showing association between green space visits in the last four weeks and a) Predicted WHO-5 score¹ b) Predicted probability of depression

This could be because an increase in green spaces leads to an increase in perceived “social cohesion” (Chen, 2021) which manifests in the form of belonging and security. Feelings of belonging specifically play into mental wellbeing, and the cause of this can probably be traced back to while humans were evolving. Early humans lived in small social groups and their survival hinged on sociability and cooperation. Being distanced from the group would have been detrimental to an individual as they would have a decreased chance of survival alone. If modern-day individuals feel distanced from community and lonely, this is likely to degrade their mental health as humans are, by evolution, a social species. Feelings of belonging – that can be inspired by green spaces – can therefore improve an individual’s mental wellbeing.

As mentioned in the introduction, in order to utilise green spaces to maximise feeling of inclusion – and therefore improve mental health – two key routes can be taken. Firstly, you

¹ “WHO-5 is a self-report instrument measuring mental wellbeing. It consists of five statements relating to the past two weeks. Each statement is rated on a six-point scale with higher scores indicating better mental wellbeing.” (WHO, 2024b)

need to ensure the quality of the spaces are appropriate to encourage people to visit them.

Secondly, you can host community-based social events to encourage people to be together in the green spaces to improve feelings of social cohesion.

Dr Amy Barnes, research fellow in the department of health sciences at the university of York, states that “factors such as the structures within green spaces, whether there are amenities like seating or toilets, whether there is pollution or littering play an important role in the quality of the green space”. Work has been done in deprived areas of Bradford with a group of young teenage girls to design improvements to green spaces to make the spaces feel safer and more welcoming for them (Barnes, 2025). This type of work increases not only access to green space for people who may have found it uncomfortable to engage with them before, but makes it more pleasant for the people already using the space as it has also been found to decrease the incidence of anti-social behaviour. (Barnes, 2025)

A further example of this type of redevelopment is a project in Oldham where the environmental charity Hubbub found “powerfully motivated women who wanted their neighbourhoods to improve”, and used this cohort of local community members to improve derelict alleyways that, as the local people stated, were transformed from “an environment that brought us [...] despair into one that brings us joy and hope.” It was also found that there was a “100% decrease in fly tipping” after the initiative (Friends of the Earth, 2020).

The WHO expands on this by describing how an area’s “place identity” may influence the level of antisocial behaviour, and therefore how safe an area is and how likely it is to be used as an area for social interaction (Van den Bosch, 2016). A specific way that the quality of an urban green space can be improved is by creating a “refuge”. A refuge is defined as “a place surrounded by bushes and higher vegetation where people feel safe, play and can observe

other people being active” (Van den Bosch, 2016), and is shown to decrease stress and improve mental wellbeing. It is however still important to find the balance between a refuge versus too high a level of vegetation density as that can be “negative for mental health” (Beute, 2023). It can be a thin line to tread between providing refuge and having a space that feels overgrown and uncared for (and therefore unsafe). It is crucial to make sure these green spaces have high-quality amenities that appeal to all demographics. Developing a “multifunctional” green space would be ideal (given there is enough space to facilitate it), somewhere that would have “natural play spaces” plus both “sports and athletics fields”, and “nature areas” which can be visited by young children, adolescents, and older adults respectively (Lafrenz, 2022). A space that encompassed all three would be able to maximise the number of people who use the green space, maximising the feelings of social cohesion present in the area and thus improve the overall mental health of the users of the space.

With higher-quality green spaces, it would also be much easier and more pleasant for people to organise social events in the spaces. These could range from simple two-person social meetups, to large community-wide gatherings (such as fairs, fêtes, or organised walks). Community sports schemes can also be facilitated by using communal green spaces and they are shown to not only improve physical health but also mental wellbeing from the community involvement aspects, plus increasing safety and security in neighbourhoods. Due to such schemes across the UK, a study by Sport England and Sheffield Hallam University has shown that there have been “10,000 fewer crime incidents”, and “improved levels of social trust, belonging and community engagement” (Hollingsworth, 2020). These would benefit all

individuals in an area irrespective of whether or not they partake in the actual sporting activity as they improve the overall quality of an area.

When thinking about community-based events that could be organised in urban green spaces, Dr Barnes points out that “how the events are organised, who puts them on, and who it might reach in a local community” must be considered. Some events would require much more planning than others and there would need to be a way to communicate about such events to the community. In terms of who an event may reach in the local community, it is given that not everyone in a community would be interested in partaking in all the same events: certain demographics would be the target for certain occasions. For example, hosting a hog roast or a beer festival in a predominantly Muslim community, or hosting a modern music festival in an ageing community would not receive as much engagement. This goes to highlight the importance of multi-functional green spaces that would be able to accommodate a variety of events that could target all the different demographics within a community. For example, in Inverclyde an audit was performed to examine green spaces to identify the lowest quality ones. Volunteers were trained in “woodland maintenance”, and biodiversity and accessibility were improved the volunteers scored higher on the short Warwick-Edinburgh Mental Wellbeing Scale after taking part (Friends of the Earth, 2020).

Dr Barnes further gives an example of a green-space event that would be very effective at improving social cohesion: growing food. Food is often a good way to “bring together people of different cultures” (Barnes, 2025) as everybody present would have a unique relationship with it that they would be able to share with others and form stronger social bonds.

Community gardens and allotments are examples of how this can be achieved.

In summary, the incidence of non-communicable diseases can be reduced by designing high-quality, multi-functional and accessible green spaces that will improve feelings of social cohesion within communities. Stronger feelings of connectedness and belonging are linked to better mental wellbeing (which can subsequently reduce other physical non-communicable diseases) due to an evolved predisposition to want to be apart of a social group. One way to achieve this is via both protecting and improving the quality of existing green spaces- to encourage people to use them- people are much more likely to actively choose to use a high-quality space rather than being put off and feeling unsafe if the space is uncared for. In addition, it is also possible to encourage people to use green spaces by hosting community wide events. These give individuals reasons to venture into green spaces and interact with other people from their local community, especially if the events encourage conversation and connection. The 21st century is unfortunately seeing many people suffering from mental health crises each year (Mind, 2024). Finding ways to improve peoples' mental health is paramount. To help reduce the risk of mental health related diseases themselves and the knock-on effect on a wider range of non-communicable diseases, high quality green spaces must be protected, improved and enjoyed across the UK.

References

Barnes, Amy (2025). Private interview as part of TechFest's STEM Next Essay Competition.

Interview by AUTHOR, 07 August 2025.

Beute, F. et al. (2023) 'How do different types and characteristics of Green Space Impact Mental Health? A scoping review', *People and Nature*, 5(6), pp. 1839–1876.
doi:10.1002/pan3.10529.

Chen, K. et al. (2021) 'How does urban green space impact residents' mental health: A literature review of mediators', *International Journal of Environmental Research and Public Health*, 18(22), p. 11746. doi:10.3390/ijerph182211746.

de Zylva, P., Gordon-Smith, C. and Childs, M. (2020) *England's Green Space Gap*, full report: Policy and insight, Friends of the Earth | Policy and insight. Available at:
<https://policy.friendsoftheearth.uk/download/englands-green-space-gap-full-report>
(Accessed: 16 August 2025).

Geneshka, M. et al. (2021) 'Relationship between green and blue spaces with mental and Physical Health: A systematic review of longitudinal observational studies', *International*

Journal of Environmental Research and Public Health, 18(17), p. 9010.

doi:10.3390/ijerph18179010.

Hollingsworth, T. (2020) Why investing in physical activity is great for our health – and our nation, Sport England. Available at: <https://www.sportengland.org/news/why-investing-physical-activity-great-our-health-and-our-nation> (Accessed: 08 August 2025).

Lafrenz, A.J. (2022) 'Designing multifunctional urban green spaces: An Inclusive Public Health Framework', International Journal of Environmental Research and Public Health, 19(17), p. 10867. doi:10.3390/ijerph191710867.

Mind (2024) Big Mental Health Report 2024. Available at:
<https://www.mind.org.uk/media/vbbdclpi/the-big-mental-health-report-2024-mind.pdf>
(Accessed: 16 August 2025).

Van den Bosch, M. (2016) (PDF) urban green spaces and health - a review of evidence, Urban green spaces and health - a review of evidence. Available at:
https://www.researchgate.net/publication/309674084_Urban_green_spaces_and_health_-_a_review_of_evidence (Accessed: 08 August 2025).

White, M.P. et al. (2021) 'Associations between green/blue spaces and mental health across 18 countries', *Scientific Reports*, 11(1). doi:10.1038/s41598-021-87675-0.

World Health Organization (2024a) Non communicable diseases. Available at: <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases> (Accessed: 08 August 2025).

World Health Organization-five well-being index (WHO-5) (2024b) World Health Organization. Available at: <https://www.who.int/publications/m/item/WHO-UCN-MSD-MHE-2024.01> (Accessed: 22 August 2025).