
Photo: Diana Parr


Photo: Herb Christophers

The contribution of natural environments to our health and wellbeing

Natural environments, and visits to those natural environments, do contribute to health and wellbeing in New Zealand.

A review by Paul Blaschke, commissioned by DOC in 2012, found that the 1.6 million annual visits by adult New Zealanders to public conservation areas contribute to New Zealand's health and wellbeing outcomes, especially to increased levels of physical activity and improved mental health and wellbeing[1].

Research suggests that exposure to natural environments has direct, positive effects on human health and wellbeing:

- by providing opportunities to undertake physical activity
- by facilitating the development of social capital
- directly, through restorative effects.

He found that many of the benefits documented appear to be available from all types of terrestrial (green) or freshwater or marine (blue) space.

Three ways to provide health and wellbeing through green/blue spaces

1. *Providing opportunities to undertake physical activity*

Green space provides opportunities to partake in physical activity, strongly associated with better physical and mental health outcomes, and can play a role in both preventing and managing chronic disease

2. *Facilitating the development of social capital*

Green space may help develop social capital by providing places to interact with other people and undertake activities with groups and by strengthening people's sense of attachment to their natural environment and providing a sense of national or cultural identity. There is a well-established link between social capital and improved physical and mental health.

3. *Directly, through restorative effects*

Most research has been focused on so-called 'restorative' effects such as recovery from stress and attention fatigue. Recent research also suggests that green space might directly affect physical or mental health in other ways, such as the effects of various sensory stimuli that forests offer, reduced blood sugar levels in diabetics, or possibly beneficial direct effects of volatile organic compounds found in forest trees on human immune functioning.

1 Blaschke, P. 2013: Health and wellbeing benefits of conservation in New Zealand. Science for Conservation 321. Department of Conservation, Wellington. 37 p. Available at: www.doc.govt.nz/Documents/science-and-technical/sfc321entire.pdf

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What are the key gaps in our knowledge?

The existing literature on this topic is not specific or complete enough to conclusively answer all the research questions of interest to DOC. It is therefore important to be aware of where the gaps in the current research lie, and what messages can be conclusively backed by existing evidence.

- While there is a large body of literature on potential health and wellbeing benefits, much of this research does not specifically quantify the link between green/blue space and wellbeing benefits.
- 'Blue spaces' in public conservation areas (lakes, streams, coastlines, marine reserves) are more poorly researched than green spaces.
- It is not clear if the relatively large and 'natural' areas that comprise the most well-known areas are more beneficial to health and wellbeing than other types of green space (e.g. urban parks administered by local government). This is because much of the literature does not differentiate between areas like public conservation areas and green/blue space more generally.
- The literature reviewed did not establish whether benefits last beyond the short term, which population groups might derive the most benefits, or what 'dose' of nature is required to yield benefits.
- All potential health and wellbeing benefits may be associated with monetary benefits such as reduced healthcare costs. However, given the lack of specificity on the 'added benefits' of nature, it is currently not possible to put a monetary value on these benefits.
- There have been some studies of the economic values of recreation activities such as walking or biking. For example, a recent report commissioned by local government councils in Auckland, Waikato and Wellington examines the significant economic costs of physical inactivity and makes a significant contribution to New Zealand research in the area.
- Further investigation into the activities that are undertaken in public conservation areas in New Zealand, and the health and wellbeing benefits associated with these activities, is needed. This includes work towards understanding the usage of different types of green and blue spaces, and more detailed demographic information on visitors undertaking different activities. This information would allow better understanding of the relationships between conservation and health and wellbeing in New Zealand, including estimates of monetary values of the benefits of visiting public conservation areas.

How could DOC increase the health and wellbeing benefits associated with public conservation areas?

In New Zealand many health outcomes are dependent on people's socio-economic status, and health inequalities are increasing.

Most accessible green areas tend to be local government-administered urban reserves, rather than the relatively 'natural' areas (sometimes remote) that comprise most public conservation areas. To equitably increase any health and wellbeing benefits associated with public conservation areas requires good accessibility by all groups in the population, and indeed is likely to require greater access by groups not currently accessing public conservation areas.

Two broad strategies to increase the benefits associated with public conservation areas are:

1. Maximise health and wellbeing benefits of its more accessible urban and peri-urban public conservation areas, including historic areas ('bringing parks to people').
2. Maximise access by all groups to all its natural areas ('bringing people to parks').

DOC will not be able to provide the full range of potential health and wellbeing benefits on its own, especially given the important range of public natural areas that are managed by local government. For either strategy, DOC should engage with local government and other stakeholders in the health and volunteering sectors to plan for integrated research and future implementation of policies to maximise health and wellbeing benefits associated with public conservation areas.

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2 Market Economics Ltd 2013. The costs of physical inactivity: towards a regional full-cost accounting perspective. Report prepared for Auckland Council. Waikato Regional Council and Wellington Regional Strategy Committee. 105 p. Available at: www.aucklandcouncil.govt.nz/EN/planspoliciesprojects/reports/technicalpublications/Documents/costsofphysicalinactivityreport.pdf or www.waikatoregion.govt.nz/Costs-of-Physical-Inactivity

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