Recent findings on (urban) blue spaces and health

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This talk will focus in particular on work carried out at the European Centre for Environment and Human Health as part of the 'Blue Gym Project', and will set this work in its historical context. For over 250 years, the main focus was on physical mechanisms by which sea water could tackle disease, while the possibility that oceans could have their largest impact through mental health and well-being was for many years less well researched. It is now well established that stress and mental disorders can directly affect physical health by reducing immune functioning and increasing the risk of physical conditions such as cardiovascular disease. Thus, it is entirely conceivable that one of the main benefits of ocean and sea exposure may be in the way in which it calms the mind, rather than directly healing the body.

Studies at the Centre have used a variety of approaches to examine relationships between mental health and well-being, and blue space and coastal environments. Results from stated preference studies using photographs have been triangulated using revealed preference through Hedonic Pricing. Several projects have used GIS to link coastal proximity and land cover data to large government sponsored secondary datasets, such as the Census, the British Household Panel Survey and the Monitor of Engagement with the Natural Environment survey. Research projects include cross-sectional ecological analysis of selfreported health and residential area coastal proximity; longitudinal individual level analysis of mental health and coastal proximity; and self-reported responses of visitors to natural environments. These studies show that people report higher levels of well-being and positive emotions when living nearer to blue space, or when exposed to blue space. Possible explanations include potential direct benefits from stress-reducing properties of the sea, and a greater likelihood of engaging in physical exercise, which is well documented to be beneficial for mental health and well-being. The most recent project showed that the frequency of physical exercise in the UK varied by residential area coastal proximity, with the highest levels in those parts of the country with the most beaches.