



Mark Nieuwenhuijsen - Scientific Coordinator

Green space has been associated with a range of beneficial health effects in a number of experimental and epidemiological studies. These have mainly been carried out in north-western Europe and North America, but show that the potential positive health impacts of green space around the world could be large. People in expanding cities and new, developing ones, may benefit enormously health wise if sufficient green spaces are included.



However, we do not know exactly what kind of space is most beneficial and what the underlying mechanism responsible for it. These could be physical activities and social contacts, reduction of stress, pollution, etc.

For optimal benefit, do the green spaces need to be large? Are small spaces equally beneficial, and what are important aspects? What do city planners like to find out about? What about access, availability of facilities, or safety? These are the type of questions the PHENOTYPE consortium will try to answer by conducting a number of studies in different parts of Europe. The wider geographical coverage is important to understand if, and to what extent, there are differences in availability of green spaces, perception and use in different areas in Europe. E.g. green space in the Netherlands is very different from that in Spain.

Who are 'we'?

'We' are a consortium of eight research institutions based in Lithuania, Netherlands, Spain, Switzerland, United Kingdom and United States, making up the core of PHENOTYPE.

What are we here to do?

We are looking into the effects of natural spaces on physical and mental health, and will translate scientific findings into recommendations for land-use planning and management.

Keen for more?

Find out more about the thoughts and facts from our experts in [videos](#) posted on the PHENOTYPE website.

How to stay updated?

Visit the [PHENOTYPE website](#), or [sign up to receive e-updates](#). If you have any questions, comments or collaborative interest, expert or not, we love to hear from you!

An important part of the project is the involvement of stakeholders and the link to policy and management. It is important that the findings of the project have practical use, and therefore right from the beginning, we want to involve those that design and develop green spaces. We welcome and encourage active involvement by anyone involved in this community.

The PHENOTYPE partners come from a range of backgrounds and skills, employing new technologies such as GIS and smartphones to measure peoples use and perception of green spaces. We believe this enriches the current research in the area and will provide improved and new insights in the field. The project has already created a lot of excitement and started off with a successful open workshop in Barcelona in May with large interest from various stakeholders in Catalonia. We expect that there is more interest out there in the rest of Europe, and if you want to participate, collaborate and kept up to date, please let us know.



Jolanda Maas & Magdalena van den Berg – Health Promotion

We, the department of Public and Occupation health of the VU Medical Center, are participating in PHENOTYPE because we think it is very important to investigate which role the natural environment can play to improve people's health. In the next few years more and more people will live in urban areas. At the same time the quality and quantity of green space in urban areas urban areas has lost a lot of natural areas. Thus people face the prospect of living in less green living environments. We would like to find out whether this has health consequences. And if so, we would like to help planners with a tool for how to design green cities which positively influence health.

In our research group we have been investigating the relation between nature and health for several years. These studies have shown that in the Netherlands people living in green environment not only feel healthier but also are healthier, as they less often visit the General Practitioner for health complaints. However, there are still a lot of questions regarding the relation between green space and health which remain unanswered. With PHENOTYPE we expect to find answers to questions such as: Is the relation between nature and health equally strong in other European countries? Why does nature positively influence health? What is the importance of possible underlying mechanisms such as stress, physical activity, social contacts? Which types of nature influence health? What happens in the brain when people see nature?

Furthermore, we hope the results of this project will inspire people to bring more nature into living environments of people.

Did you know?

- * The chance of feeling unhealthy is 1,5 larger when living in environments with less green space than when living in an environment with a lot of green space (Maas et al., 2006)
- * The chance that people visit their general practitioner with complaints related to depression is 33% higher in living environments with little greens space than in living environments with lots of green space. Equal associations have been found for diabetes and Asthma (Maas et al., 2009)
- * Increasing the amount of green space in people's living environment with 10% can safe us up to 394 million euro's in health care costs and costs of labour. This was calculated by the Dutch Company KPMG.

Chris Gidlow - Therapeutic Studies

Our team of researchers in the Centre for Sport, Health and Exercise Research, Staffordshire University (UK) are very excited about the PHENOTYPE project. We are based in Stoke-on-Trent, which is a very green city, but with a lot of deprivation. With that deprivation, comes a range of health issues. As a result, the local authority and National Health Service have put in place many initiatives and programmes to improve health. If we can use PHENOTYPE to figure out how to make the best of the many natural environments across the city, then we hope that we can contribute to improving the health of the local population.



From an academic perspective, there are many studies out there that have made links between natural environments and health. But PHENOTYPE offers a fantastic opportunity to move our understanding on using the same methods in different studies across a range of countries, including both traditional and novel approaches. Because of the many urban and deprived communities within our UK study area, we are particularly interested to see if we, like other researchers, find that health benefits are greater in the most urban and deprived populations.

The UK team are looking forward to working with the multi-disciplinary team of PHENOTYPE project partners and stakeholders from each country, and learning more about the differences and similarities in health-environment issues in different regions of Europe.

As with any ambitious project, we expect many challenges along the way. In the first few months, we are already making difficult, but important decisions about methods and procedures to use, and constantly refining the approaches to make sure that the data we collect can usefully inform practice and policy relating to natural environments in urban planning.

As a keen cyclist and runner, I also have a personal interest in natural outdoor environments and hope to visit many of them across the study areas over the next few years.

Peter van den Hazel - Policy Involvement

The most striking aspect of working on Green and Health is the approach to find mechanisms which explain the benefits of green, blue, white, space in our life. This is a very positive approach; it enables us to work together with many different stakeholders.



A nice example is the following quote. Watkins, president of the Landscape Institute said: *"Good quality landscape has a positive impact on the lives of ordinary people. It also engages everyone from food experts to poets and it remains high on the green political agenda.I have always believed that the role landscape architects play in shaping our cities and countryside is essential if we are to fulfil our potential as a society. Our members offer an unsurpassed level of professionalism and technical expertise in the sphere of environmental design."*

This quote shows that landscape architects are amongst the different stakeholders who believe that green in cities is beneficiary for people. The partners within PHENOTYPE want to build together with other professionals a knowledge base to understand the proper use of green in cities. The domain of green and health is broad and involves many disciplines. One of the tasks within the PHENOTYPE consortium is to build a network of different organisations or initiatives. An example of such an initiative is the Green Infrastructure. In the United Kingdom the Green Infrastructure Partnership has been designed to help communities make more innovative use of existing grey infrastructure – such as creating rooftop gardens, small community gardens or living walls. A definition of 'green infrastructure' was outlined in the The Natural Environment White Paper as – a term used to refer to the living network of green spaces, water and other environmental features in both urban and rural areas. It is often used in an urban context to cover benefits provided by trees, parks, gardens, road verges, allotments, cemeteries, woodlands, rivers and wetlands.

What I am interested in is getting information from all these different initiatives and to learn from each other. It is surely a dynamic field.

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