

Healthy Cities by Nature

How urban nature can become public health infrastructure

Lessons learned from the EFI Biocities webinar with Mònica Ubalde, ISGlobal, Päivi Sieppi, City of Lahti and Liisa Tyrväinen, LUKE on June 3rd 2026

Why this matters for cities

Cities increasingly shape public health outcomes. Around one quarter of disease burden and premature mortality is linked to environmental factors, many influenced by poor urban planning, non-sustainable transport systems and limited or lacking access to green and blue spaces (Prüss-Üstün et al., 2016). Yet many cities still prioritize built infrastructure and motorized traffic over people, nature and public health. This exposes residents to heat, air and noise pollution, sedentary lifestyles and social isolation, while limiting access to the scientifically proven restorative benefits of nature (Nieuwenhuijsen, 2016; Hartig et al., 2014).

Health & Wellbeing

Urban green and transport planning influence exposure to air pollution, noise, traffic hazards and heat, influencing access to green spaces, public open spaces and opportunities for physical activity. As a result, urban planning is also a public health intervention (Nieuwenhuijsen, 2016).

Equity

Access to green and blue spaces should be evenly distributed and available to everyone across the urban areas. Unequal access can restrict opportunities for physical activity, health and wellbeing, social connection and stress recovery, particularly among groups already facing health and social vulnerabilities (Hartig et al., 2014; Barboza et al., 2021).

Climate Resilience

Climate change and the urban heat island effect are increasing exposure to extreme heat in cities, with direct consequences for citizens' health. Green infrastructure can reduce these risks by cooling neighborhoods through shade and evapotranspiration, while also managing stormwater, improving air quality and supporting biodiversity (Hartig et al., 2014; Lungman et al., 2023).

Policy & Delivery

Many determinants of health lie outside the health sector. Effective nature-health action therefore requires collaboration across public health, urban and transport planning, environmental management, local institutions and communities (Nieuwenhuijsen, 2016).

Evidence supporting action

- Across Europe, almost 60% of the population lacks recommended access to green space; improving access could prevent more than 43,000 premature deaths, (Barboza et al., 2021).
- In Barcelona, only 6% of residents met the 3-30-300 green-space rule. In the success areas, a correlated 23–76% reduction in indicators of poor mental health, medication use and psychologist/psychiatrist visits was shown (Nieuwenhuijsen et al., 2022).
- Modelling of Barcelona’s Superblock model estimated that nearly 700 premature deaths could be avoided annually, including around 60 through greener spaces (Mueller et al., 2019).
- A Barcelona green-axis model found that expanding green areas could reduce mental-health problems by 50%, generating potential health-system savings of about €45 million per year (Vidal Yáñez et al., 2023).
- Nordic studies show that major green-space availability is linked to lower depression risk, while regular nature walks in the Helsinki metropolitan area are associated with reduced antidepressant use (Klein et al., 2022; Gonzales-Inca et al., 2023; Turunen et al., 2023).
- Among children, Nordic population studies found that higher green-space provision was associated with lower risk for 12 of 18 psychiatric disorders examined (Engemann et al., 2020).
- In Finland, a 10% increase in green-space supply was estimated to reduce annual treatment costs for depression by 6% and for type 2 diabetes by 1.7% (Tyrväinen et al., 2024).



Aerial view of the centre of Lahti, Finland. Photo credits: City of Lahti

Cities snapshot: Lahti, Finland

A city-level example of integrating nature and health in urban planning, services and education.

City Context

- Lahti is Finland's ninth largest city, with around 122,000 residents, one hour from Helsinki.
- Environmental efforts started with the restoration of Lake Vesijärvi in year X and led to the European Green Capital 2021 title.
- The city strategy, master plan and strategic programmes embed sustainability, nature protection and nature-positive targets.

Policy Tools

- The **"Nature-positive Lahti 2030 roadmap"** aligned local action with global biodiversity goals.
- The "Nature conservation programme" aims to double protected areas to 2,000 ha.
- Green area planning, urban tree policy, and legally binding master plan maps guide the protection of green and blue infrastructure.

Intervention: "Nature Step to Health"

- **"Nature Step to Health"** is a ten-year programme integrating public health and environmental goals.
- It is coordinated by the Wellbeing Services County of Päijät-Häme, the City of Lahti and the Lahti University Consortium.
- The programme addresses public health, climate mitigation and adaptation, biodiversity loss and long-term cost reduction.
- Its core objectives are healthier diets, active mobility, healthier living environments, as well as stronger exposure and connection to nature.
- Implementation connects local planning, health services, schools, staff training and communication so that nature-health actions become part of everyday routines.

Implementation Examples from Lahti

The "Health Forest" works best when it is not treated as a stand-alone park project, but as a bridge between healthcare, education, land-use planning and community awareness.

Health Forest

- Opened in 2023 beside Päijät-Häme Central Hospital and accessible to hospital staff, patients, visitors and residents.
- Combines a physical place with a method for making nature's health benefits visible, including an accessible 900 m route.
- Supported by guide training, staff excursions, public events and regular cooperation between city and health-service actors.

Education, prescriptions and staff practice

- A nature prescription pilot tests nature-based interventions for selected target groups.
- Planetary health training for city staff is delivered outdoors, allowing staff to experience nature benefits directly.
- Environmental education is part of the curriculum for grades 1–9, and all 8th grade pupils visit the Health Forest.

What can be transferred to other cities?

These transferable lessons show how cities can move from recognizing the health value of urban nature to embedding it in infrastructure, institutions and daily routines.

1. Treat nature as health-promoting infrastructure

Urban green and blue spaces deliver health, climate and ecosystem benefits together. They should be planned, maintained and funded as essential infrastructure, not as decorative or residual space.

2. Start from modifiable health determinants

Steets, transport, noise, air pollution, heat, social connection and access to green space are shaped by local decisions. Framing these as health determinants helps cities act in an integrated manner.

3. Mainstream through institutions

Nature-based health benefits require solid evidence, supportive policy, adequate resources, skilled practitioners and strong collaboration across health, planning, environment and community services.

4. Build routines, not isolated projects

Nature-health action becomes more durable when embedded in school curricula, staff training, health counselling, municipal programmes and consistent communication.

Policy support and enabling conditions

- A clear mandate recognizing nature as a crucial health-promoting infrastructure.
- Dedicated coordination across municipal departments, health services and social-care providers.
- Investment in nature quality, accessibility, safety, shade and biodiversity- and its maintenance.
- Training for planners, teachers, health practitioners and municipal staff.
- Shared evidence and indicators that are relevant and significant to both health and urban-planning audiences.

Trade-offs and challenges

- Evidence-to-policy gap: health, planning and municipal actors may need different types of scientific and economic evidence and language.
- Equity risk: new green investments can reinforce inequalities unless access and distribution are planned explicitly, with particular attention to marginalized areas and communities.
- Space conflicts: reallocating traffic space to people and nature can be politically difficult in car-oriented environments, showing the benefits with solid data will help.
- Long-term stewardship: health benefits depend on quality, safety, biodiversity, shade, accessibility and maintenance.
- Measuring impact: health, social and economic outcomes can take time to appear and require interdisciplinary monitoring.

What can cities do next?

Cities can start small, but they need a strategic route from evidence to practice: map access, statistics and data, target priority groups, co-design interventions, train staff and measure health, social and ecological outcomes.

0–6 months: Diagnose

- Map access to green and blue-spaces, identifying gaps through a health and equity lens.
- Prioritize settings where nature-health action can have high impact, such as schools, care facilities, hospitals and heat-vulnerable neighborhoods.
- Build a shared language across planning, health, biodiversity and climate teams.

6–18 months: Pilot

- Co-design one or two nature-health interventions with residents, municipal staff and local organisations.
- Test practical actions such as nature prescriptions, health walks, outdoor learning, shaded active-mobility routes or greening around care facilities.
- Track simple indicators, including use, access, perceived well-being, heat exposure, biodiversity value and maintenance needs.

18+ months: Mainstream

- Embed nature-health actions in master plans, green-area programmes, public health strategies and school curricula.
- Fund long-term stewardship, including maintenance, staff training, communication and community engagement - not only capital works.
- Monitor health, climate, biodiversity and social outcomes together.

Call to action

Cities do not need to wait for the health sector to act. They can improve health by redesigning everyday environments so that contact with nature becomes easy, equitable and systematic.

Resources box

- [EFI Biocities Facility](#)
- [Webinar recording: Healthy Cities by Nature](#)
- [Speaker slides: ISGlobal, City of Lahti, Natural Resources Institute Finland](#)
- [Contact](#)
- [EFI Biocities LinkedIn](#)

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