

Executive Summary



Funding Trees for Health

An Analysis of Finance and Policy Actions to
Enable Tree Planting for Public Health



Acknowledgments

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As city populations grow, urban trees cannot be viewed as a luxury: Trees are an essential component of a livable community and a core strategy for improving public health.



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The scientific case for the benefits of trees and urban nature has become more solid over the last few decades. Trees and other natural features in cities can help regulate water quality, water quantity, and the timing of water flow. They can help clean and cool the air, reducing harmful air pollutants and ambient air temperatures. They lend beauty to our streets, enhance citizens' lives, and significantly increase property values. When you consider all the benefits that street trees can provide to society, there is a strong business case for increased societal investment. One study in California, for instance, found that for every \$1 spent on tree planting and maintenance, urban trees deliver \$5.82 in benefits.

This report focuses on an area that has received a lot of attention recently, the links between trees and public health. Recent science has shown that the link is robust and economically significant. The central question of this report asks: *If trees are so important for health, how can cities use innovative finance and policy tools to enable tree planting for public health?*

This question is important, because despite the large literature on the many benefits provided by street trees and other natural features, most U.S. cities are experiencing declines in urban forest cover over time, with a net loss of 4 million urban trees every year, or about 1.3% of the total tree stock. New tree planting isn't keeping pace with the mortality of existing trees, either from natural causes or from clearing of trees for new development. If trees provide so many benefits, why are cities letting this natural resource dwindle away? We believe that there are four main barriers preventing cities from fully seizing the power of street trees and other natural features:

- 1. Lack of knowledge:** Decision-makers and the public may lack knowledge of the benefits trees provide. We hope reports such as this one can play a role in closing this knowledge gap. For cities willing to invest time and resources, urban forestry science and tools have advanced enough that it is now quite possible to estimate the benefits that current (or future) street trees provide to residents. A first guide for U.S. cities looking to systematically plan urban forestry activities to achieve multiple ecosystem service objectives can be found in [The Sustainable Urban Forest: A Step-by-Step Approach](#), a free handbook developed by the US Forest Service and The Davey Institute.
- 2. Public concerns:** There are some public concerns about potential negative problems with trees, such as problems with fallen limbs causing power outages, or trees and untended parks providing spaces for criminal activity. In the report we address these concerns in detail and discuss possible solutions. Concerns can often be alleviated by better urban forestry practices or public education campaigns. Many of the past issues and concerns over street tree planting can be minimized in the future by following the Arbor Day Foundation's [Right Tree, Right Place](#) best practices.

3. Silos: The opportunity to advance tree planting in cities touches virtually every part of the urban landscape—from city streets and parks to private residential and commercial property. Yet the formally designated responsibility to advance tree planting often falls on just one municipal agency, such as a Forestry Office within a city’s Department of Parks and Recreation. As a result, it can be difficult for cities to efficiently identify and harness all tree planting opportunities that might be presented by the on-the-ground work of different municipal agencies. We discuss in this report how cooperative planning processes are one way to overcome this barrier.

4. Lack of financial resources: Trees are often considered a “nice to have” item when compared to other critical municipal needs such as police and fire protection, education, roads, and other public services. This perspective, combined with the annual budget cycle of most cities (as opposed to longer-term planning considerations) leaves tree planting programs minimally funded, and often at risk of reductions. Finally, there is a persistent lack of funding for urban forestry, caused by constrained urban budgets and cities generally prioritizing urban forestry budgets relatively low compared with other priorities. Budgets to support a healthy tree canopy are further strained by a lack of funding for maintenance. Most cities spend less on trees than needed to maintain current stock, let alone enough to increase tree stock to achieve health gains. The last half of this report presents solutions that can help increase funding for urban forestry to benefit public health.

The investment gap: This report quantifies the investment gap—how much more investment in trees we would need to maintain our current urban canopy and then significantly expand it to seize greater potential health benefits. *We estimate that an additional investment of around \$8 per person annually would be enough to create this green future in US cities.* We emphasize that this is an average figure, and the situation will vary greatly in different cities. Nevertheless, it is enough to show that a green urban future is not an impossible dream, but is quite affordable, if policymakers and others decide to make this investment.

Finance and policy solutions: The last section of the report describes some specific solutions that can enable tree planting for public health. *The solution that will work will vary by city, but what matters is giving value—financial and moral—to the benefits that trees provide to health.*

The report discusses some methods commonly used by cities to try to break silos by linking urban forestry to other municipal goals. These can include planning processes such as sustainability or comprehensive plans, heat action planning (where multiple agencies are planning how to mitigate risks from urban heat waves), or planning related to compliance with the Clean Water Act (e.g., stormwater plans).

We also discuss some common financial mechanisms for urban forestry, such as funding from public revenues, municipal codes and policies, and partnerships with companies and NGOs.

We propose in this report that one novel way to overcome the funding barrier may be to more closely link the goals and funding of the health sector with the goals and funding of urban forestry agencies. If trees have significant benefits to physical and mental health, as is increasingly clear from the scientific literature, then why not consider a link between health funding and urban forestry?

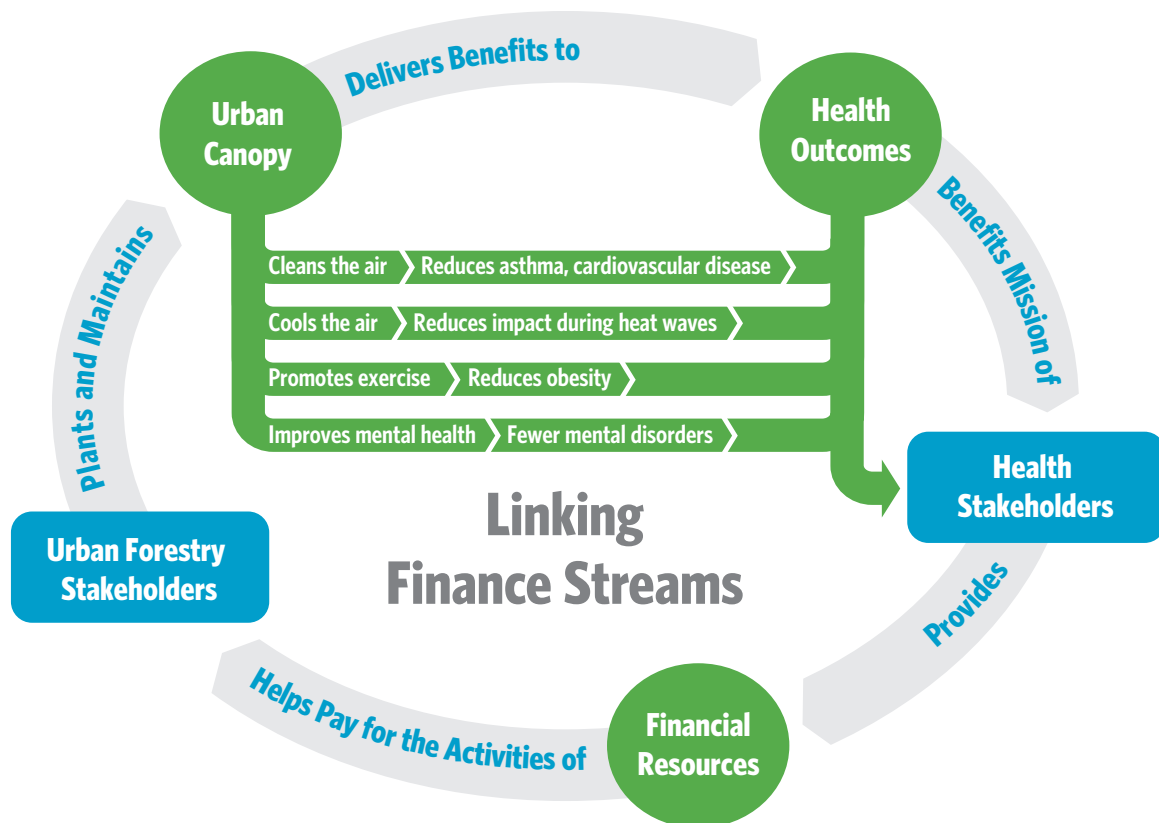


Figure E1. Conceptual model of the linkage between urban forestry funding and health funding.

The concept of linking finance streams for nature and health seems simple (Figure E1). Those whose mission it is to plant and maintain trees and other urban vegetation spend money and resources to make urban areas greener, which delivers significant benefits for mental health. This helps those in the health sector better achieve their mission of improving people’s health and well-being. To complete the circle, therefore, the health sector (whether public or private institutions) could supply some financial resources that help partially pay for the activities of those in the urban forestry sector.

We urge all cities to begin exploring ways to create this vital link between the health sector and urban forestry agencies, using one of the potential models discussed in this report. Working together, the health sector and the urban forestry sector can achieve a healthier, more verdant world.

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