



Urban Greening & Human Health Research

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APA FutureShape Convening

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APA Convening Panel Snapshot: Accessible and Healthy Communities

Problem Statements:

- **6. Considering environmental scale for improved human health outcomes**
- **8. Translating health benefits of natural and ecological systems to public health and medical professionals**

Urban Forests and Newborns

the natural environment may affect pregnancy outcomes . . .

10% increase in tree-canopy cover within 50m of a house

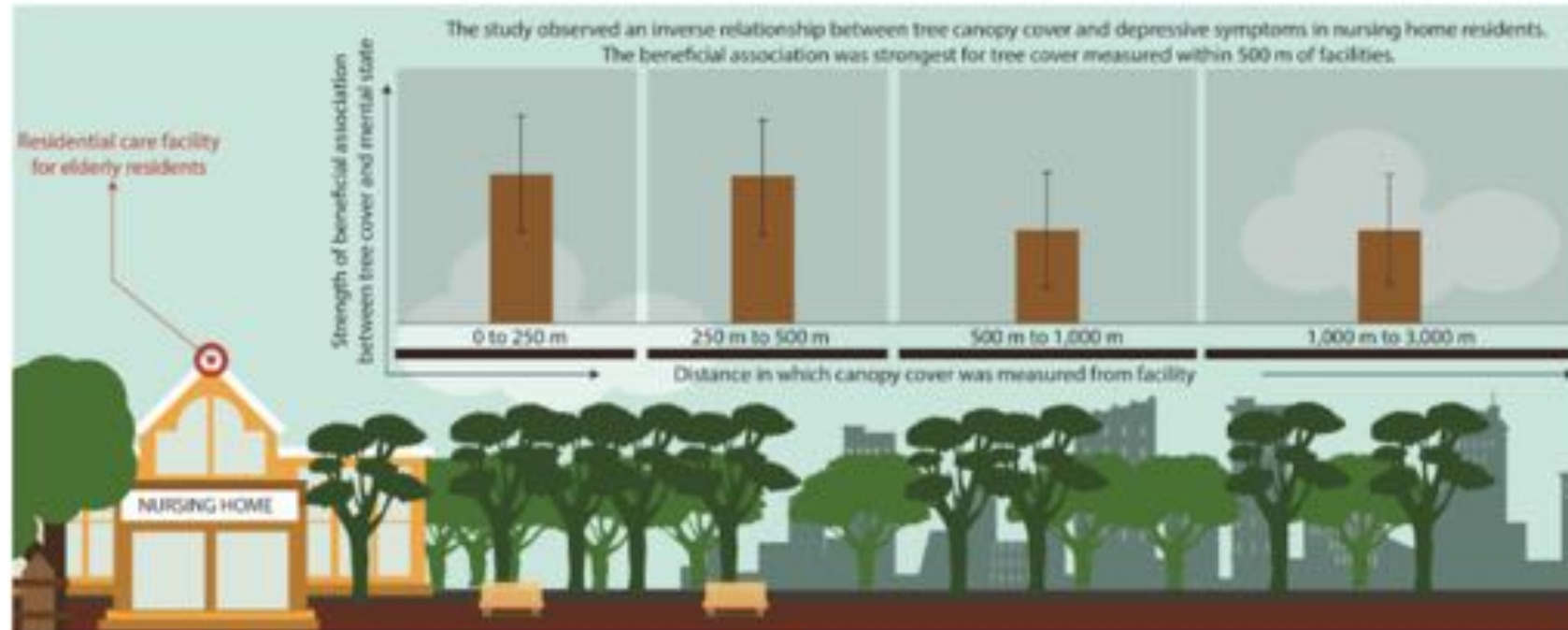
= lower number of low weight births (1.42 per 1000 births)

Donovan et al., Health & Place 2011;
Hystad et al., Env Health Perspectives 2014



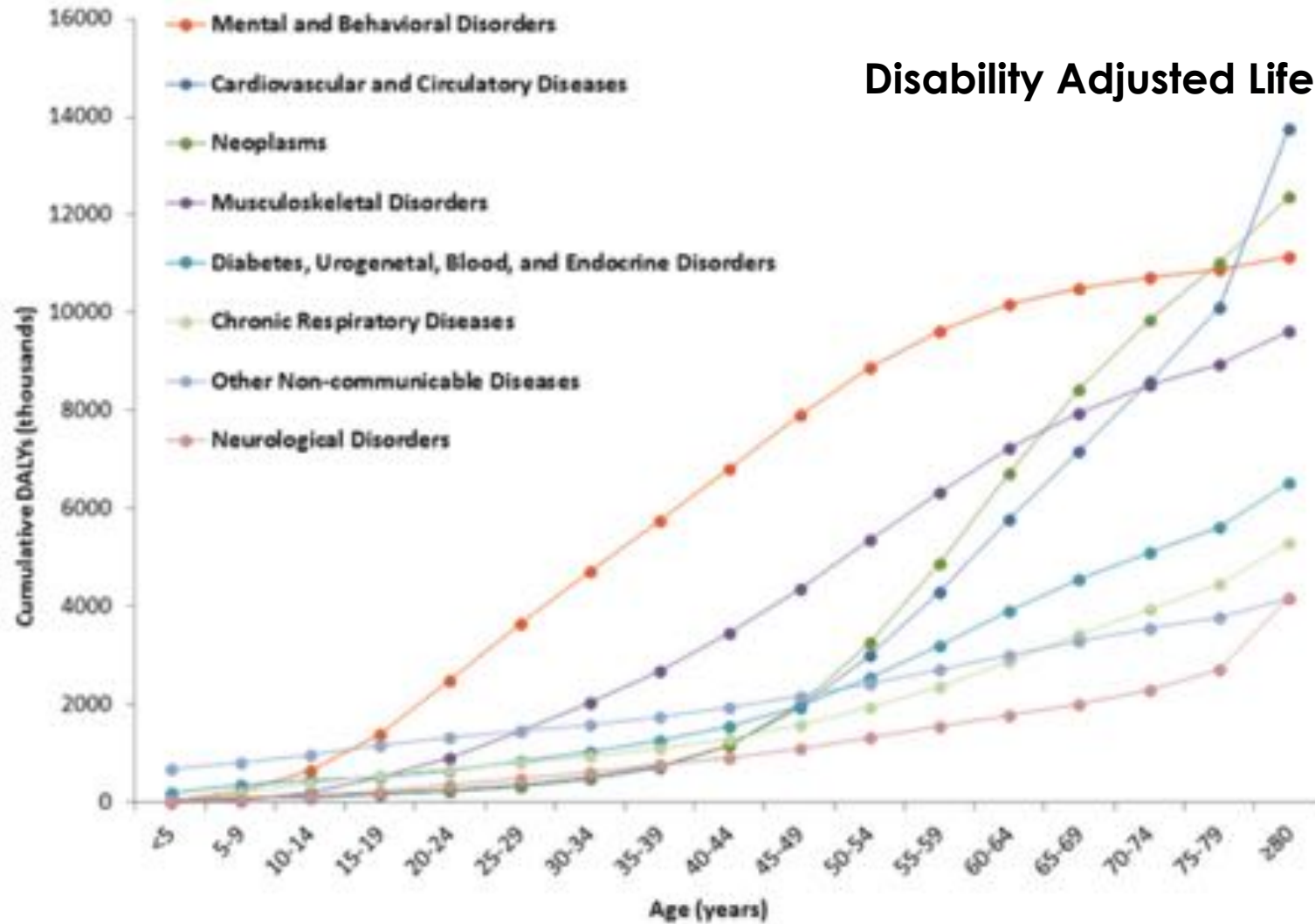
Tree cover shows an inverse relationship with depressive symptoms in elderly residents living in U.S. nursing homes

Matthew H.E.M. Browning^{a, b, ✉}, Kangjae Lee^b, Kathleen L. Wolf^c



Lifecycle :: disease & illness

Cumulative U.S. DALYs for the Leading Disease/Disorder Categories by Age (2010)



Disability Adjusted Life Year

**public health officials
moderate activity
recommendations**



parks, active living, active transit

Green Cities: Good Health

www.greenhealth.washington.edu

Sponsors:

USDA Forest Service,
(U&CF Program + Pacific NW Research)
University of Washington
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Thanks!
to U of WA students:
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Mary Ann Rozance
Sarah Krueger



Research Reviews & Summaries



Community Building

Local Economics ▶

Place Attachment & Meaning

Crime & Fear ▶

Safe Streets ▶

Active Living ▶

Reduced Risk

Wellness & Physiology

Healing & Therapy

Mental Health & Function ▶

Work & Learning

Culture & Equity

Lifecycle & Gender

Local Economics

Trees in cities are not grown and managed for products that can be bought and sold on markets, but they do provide many intangible services and functions! This article serves two purposes. First, it introduces valuation methods that are used to convert intangible benefits to dollar sums.^{1,2} Then, it shows how nonmarket valuations can support local decision-making.

Fast Facts

- The presence of larger trees in yards and as street trees can add from 3% to 15% to home values throughout neighborhoods.
- Averaging the market effect of street trees on all house values across Portland, Oregon yields a total value of \$1.35 billion, potentially increasing annual property tax revenues \$15.3 million.⁹
- A study found 7% higher rental rates for commercial offices having high quality landscapes.¹⁴
- Shoppers claim that they will spend 9% to 12% more for goods and services in central business districts having high quality tree canopy.³⁴
- Shoppers indicate that they will travel greater distance and a longer time to visit a district having high quality trees, and spend more time there once they arrive.³⁴

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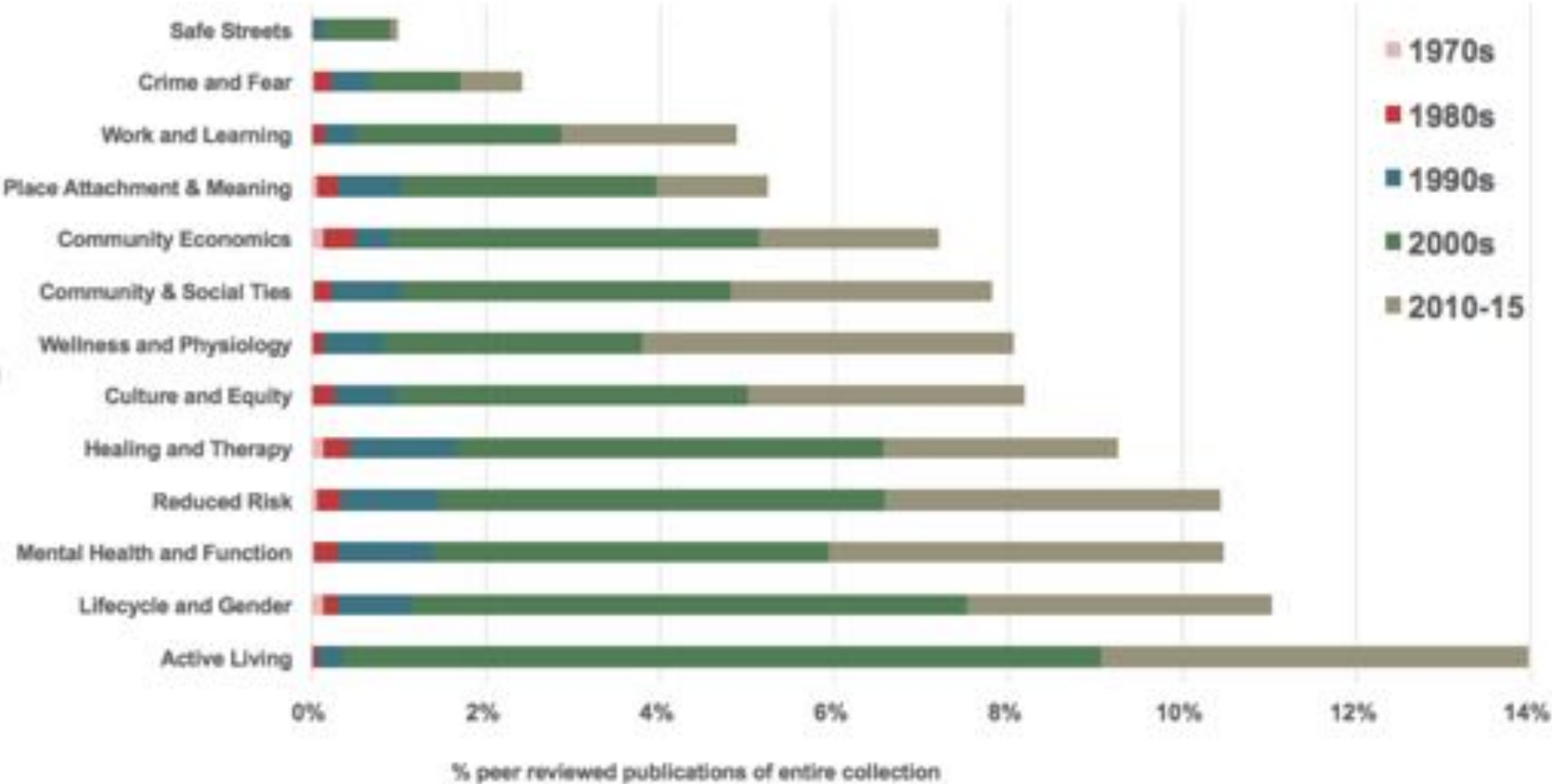
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street trees boost market value of houses, providing tax revenue for communities



Green Cities: Good Health > 4,500 peer reviewed publications



U.S. Health Care Economics

- \$10,739 per capita spending (2017)
(28% higher than Switzerland, next highest)
- annual \$3.2 trillion (2015)
- 17.9% of gross domestic product (2016)

Watersheds, Riparian, Critical Areas + Urban Forest, Parks & Green Space

NEARBY NATURE INCLUDES A VARIETY OF SPACES AND PLACES



What is Research?

**pursuit of knowledge
& understanding**

(descriptive, cross sectional, random controlled trials)



modeling

predictive

big data/smart systems

theory

conceptual explanation

assessment

crafted metrics for goals
or outcomes attainment

translational

public policy, law,
management



APA Research Agenda Format Suggestions

Problem Statement: Narrative of urban situations, problems, needs

Current Knowledge: Existing research or data, bullet list

Research Questions: Specifics that are relevant to urban planning, bullet list

www.naturewithin.info

College of the Environment University of Washington

Human Dimensions of Urban Forestry and Urban Greening

featuring research on peoples' perceptions and behaviors regarding nature in cities

Green, Cities, Good Health
human health & well-being research

What's New?

- Nature and Consumer Environments**
Research about how the urban forest influences business district visitors.
- Trees and Transportation**
Studies on the value of having quality landscapes in urban roadsides.
- Civic Ecology**
Studies of human behaviors and benefits when people are active in the environment.
- Policy and Planning**
Integrating urban greening science with community change.
- Urban Forestry and Human Benefits**
More resources, studies and links . . .

Projects Director
Kathleen L. Wolf, Ph.D.

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