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Nature and Human Health
What do we know? What should we do?

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REI Rewilding Teams & Projects
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Pacific Northwest landscapes

“snow cap to white cap”

nature and public health

all landscapes all forests
Diversity in Metro Nature

Nearby nature includes a variety of spaces and places:

- Urban forest canopy
- Biophilic design
- Parks and gardens
- Green stormwater infrastructure
Outline

1. Health & Nature: the evidence, a review

2. Key Studies

3. Program Ideas
WHO Health Definition

A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (1946)
Green Cities: Good Health
www.greenhealth.washington.edu

Sponsors:
USDA Forest Service,
(U&CF Program + Pacific NW Research)
University of Washington
NGO partners

Thanks!
to U of WA students:
Katrina Flora
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Sarah Krueger

Research Reviews & Summaries
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. 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.

- A study found 7% higher rental rates for commercial offices having high quality landscapes.

- Shoppers claim that they will spend 9% to 12% more for goods and services in central business districts having high quality tree canopy.

- 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.
Green Cities: Good Health
database of >4,000 peer reviewed publications
Data to Knowledge to Practice

- nearly 40 years of research
- critical mass of evidence – now what?
- greening or health programming
- partners, grants & funding?
Outline

1. Health & Nature: the evidence, a review
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Discovery: Human Health Benefits Across the Life Cycle
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*
Fiddleheads Forest School
Washington Park Arboretum (Seattle)
cognitive
social &
physical learning
CDC moderate activity recommendations

parks, active living, active transit
Walking Programs

children
elders
families
Parks Prescription

Date: _______________________

Dr: _______________________

Name: _______________________

I recommend:

☐ Walking

☐ Other: ________________

______________ minutes a day

______________ days per week

* Health Canada suggests moderate activity of 30 minutes per day | 5 days a week

Benefits of daily activity

• Improve overall physical and mental health
• Maintain a healthy weight
• Reduce the risk of diabetes and other chronic conditions
• Lower cholesterol levels
• Manage stress and anxiety

Signature: ____________________
Parks Prescription

1. Visit www.REACHforbetterhealth.com
2. Enter your zip code
3. Click
4. Exercise in the park and share outcomes with your healthcare provider.

Get a prescription for ParksRx from your healthcare provider.

PARKS Rx
Your Prescription For Better Health

www.REACHforbetterhealth.com/ParksRx
Made possible with funding from the Centers for Disease Control and Prevention.
Nature & Creative Professionals

focused interviews, Denmark
makes us more curious
supports flexible thinking
recharges directed-attention

aids 2 phases of the creative process:
Preparation phase and Incubation phase
sensory dimensions: space & serene

Plambech & Konijnendijk van den Bosch. 2015.
Urban Forestry & Urban Greening
Walking Meetings
creativity, energy, communication, health
Shinrin yoku (forest bathing)

- walking
- relaxing
- workers
- retirees
- networked system
- 52 bases in Japan
The medicine of being in the forest

We are the leading global voice for forest bathing and forest therapy

Santa Rosa, California
Improving Depression

Berman et al. 2012. *Journal of Affective Disorders*

20 adults with major depression walk in a park setting and an urban setting

- 50-minute walks one week apart

before-after testing:

- Mood: Positive and Negative Affect (PANAS)
- Cognition: Backward Digit Span (BDS)

Cognitive and affective improvements after walking in a nature setting
Experience the restorative powers of nature and join us for Strolls for Well-Being, a free 10-week program offered at Bloedel Reserve. If not already a member, participants are given a temporary membership to

DAY-USE STROLLS:
Since introducing the Strolls for Well-Being program in 2014, hundreds of people have benefited from the healing effects of nature.
Elders: horticulture for mobility & social connections
Veterans Outdoor Therapy

Les Winkeler/The Southern Illinoisan

World-Herald News Service

Hope for the Warriors

Outward Bound
community tree plantings

American Forests

Tree People, Los Angeles

parks
public gardens
street trees
neighborhood
Keep Oakland Beautiful

community gardens

The Heights Community Garden, Dayton OH

local food
food security
child education
nutrition
food donations
Summary

- nearly 40 years of research
- critical mass of evidence – now what?
- greening or health programming
- partners, grants & funding?
Human Dimensions of Urban Forestry and Urban Greening

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

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...

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

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