

Welcome

Keynote Address:

Dr. Pooja Sarin Tandon, M.D.

TPL's Fernside Project, Tyringham, MA



Connecting everyone to the outdoors™

2026 Massachusetts Land Conservation Conference
Nature and Health — a Pediatrician's Perspective



Dr. Pooja Sarin Tandon, M.D.

Health Director at Trust for Public Land

Pediatrician

**Professor of Pediatrics, University of
Washington**

**Professional Focus: Connecting parks and
public health**

Digging Into Nature

Outdoor Adventures for
Happier and Healthier Kids



Pooja Sarin Tandon, MD, MPH, FAAP, and
Danette Swanson Glassy, MD, FAAP

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



The Outdoors and Parks are Pathways to Health

- Dr. Tandon leads TPL's initiatives at the intersection of parks and public health
- Research emphasizes children's health and equitable access to nature
- Author of **Digging Into Nature: Outdoor Adventures for Happier and Healthier Kids**





TRUST FOR
PUBLIC
LAND®

Sagamore Hill, MA

In Massachusetts we have

Over 200 projects

14,000+ acres
preserved

255,000+ people
connected to the
outdoors





Our Impact in Boston

Community schoolyards, urban parks, and trails

- Hyde Park: Chittick Elementary Schoolyard
- Roslindale, Boston: Archdale Park and Playground

Chittick Elementary School Park and Playground

Hyde Park, Boston (2018-2024)



Archdale Park and Playground

Roslindale, Boston (2022-TBD)





New England National Scenic Trail

Southwick, Massachusetts

Nature for All Act Advocacy



- *Nature for All* legislative campaign
- *Protect Water and Nature* ballot initiative

Visit NatureforMa.org to learn more



CommonWealth
BEACON
POLITICS, IDEAS, AND CIVIC LIFE IN MASSACHUSETTS

OPINION

Amid severe weather, Massachusetts must invest in protecting nature for all

As water and temperatures rise, so does need for land and water conservation

by DAVID O'NEILL, KRIS SARRI, KATIE THEOHARIDES and JODI VALENTA

"Massachusetts is in a new era of severe weather and damaging storms. Flash floods in Leominster and the Berkshires, extreme heat in Boston, rising sea levels along the coast, and prolonged droughts are no longer rare events—they are our new reality. And their impacts are not felt equally."

"To protect all Massachusetts residents from these impacts of climate change – regardless of ZIP code— we must do more as a state to protect our rivers, lakes, forests, farms, and other natural areas."



NEWS ALERT

We submitted **90,000 certified signatures** today to advance the **Protect Water and Nature ballot initiative** toward the **November 2026 ballot!**

wbur

Nature groups say ballot proposal would tap \$100 million from Mass. sales tax for conservation

SHNS
Ready for ballot, conservation advocates hope for win in Legislature

Campaign says it gathered more than 90,000 certified signatures

Read more at natureforma.org/news

PROTECT WATER & NATURE



Please Join Me in Welcoming...

Dr. Pooja Tandon



Trust for Public Land (TPL) is a national nonprofit that works to connect everyone to the benefits and joys of the outdoors. As a leader in equitable access to the outdoors, TPL works with communities to create parks and protect public land where it is needed most.

Since 1972, TPL has protected 4 million acres of public land; created 5,364 parks, trails, schoolyards, and iconic outdoor places; raised \$93 billion in public funding for parks and public lands; and connected nearly 9.4 million people to the outdoors.

To learn more, visit [tpl.org](https://www.tpl.org).

Connecting everyone to the outdoors™

Access to the outdoors is a
fundamental human need and
essential to our health and
well-being.



COMMUNITY-CENTERED OUTCOMES



Our work is **centered in community and equity** in order to expand enduring access and connection to welcoming, high-quality outdoor spaces that do the following:



IMPROVE HEALTH AND WELLNESS



GROW HISTORICAL AND CULTURAL CONNECTIONS



STRENGTHEN SOCIAL COHESION AND CIVIC ENGAGEMENT



INCREASE CLIMATE RESILIENCE



- The United Nations Convention on the Rights of the Child recommends that all children have “opportunities to experience, interact with, and play in natural environments.”
- Safe access to outdoor play and physical activity has been long endorsed by the American Academy of Pediatrics (AAP)

Early childhood

- 3 year-old with poor sleep and frequent tantrums
- Parents heard about a “nature-based preschool” which is outdoors all day
 - Wondering about benefits
 - Worried about safety, illnesses, injuries



School age children

- 8-year-old with a recent diagnosis of ADHD, having challenges at school
- Parents are wondering about the role of screen time and physical activity in ADHD management



Children with special health care needs

- 12-year-old with physical disabilities and other special health care needs
- Family doesn't spend much time outdoors because nervous about safety and access



Teens

- 15-year-old feeling overwhelmed by school, screens positive for symptoms of depression
- Spends most free time in her room, on devices





Nature and Children's Health: A Systematic Review

Amber L. Fyfe-Johnson, ND, PhD,^a Marnie F. Hazlehurst, MS, PhD,^b Sara P. Perrins, EdM, PhD,^c Gregory N. Bratman, PhD,^d Rick Thomas, MESM, MS,^e Kimberly A. Garrett, MPH,^f Kiana R. Hafferty, BS,^f Tess M. Cullaz, BS, BS,^a Edgar K. Marcuse, MD, MPH,^g Pooja S. Tandon, MD, MPH^{c,f}



Increased Physical Activity

Increased physical fitness & physical literacy

Improved motor skills

Healthier weight

“Green time” instead of screen time

Better sleep



Improved Mental Health

- Decreased stress
- Reduced depression and anxiety
- Improved cognitive performance/ADHD symptoms

Outdoor Recess is associated with:

- *More physical activity*
- *Better behavior*
- *Improved concentration*



Improved Prenatal Health

- Less risk of preterm birth
- Higher birth weights
- Better pregnancy outcomes

Improved Vision



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New Report Recommends Myopia Be Classified as a Disease, Policies for Children to Spend Time Outdoors

Benefits for Nutrition

Children involved in gardening are more likely to try fruits and vegetables



Decreased Harmful Exposures & Climate resilience

Improved air quality

Reduced exposure to high heat

Reduced noise pollution



A Range of Lifelong Health Benefits



REDUCED
STRESS



IMPROVED
SLEEP



REDUCED
ANXIETY &
DEPRESSION



GREATER
HAPPINESS



REDUCED
ADHD
SYMPTOMS



IMPROVED
BIRTH
OUTCOMES



PHYSICAL
ACTIVITY



LESS
OBESITY



FASTER
POST-OP
RECOVERY



BETTER
EYESIGHT



ACADEMIC
BENEFITS



PROSOCIAL
BEHAVIOR



PAIN
CONTROL



PRO-
ENVIRONMENTAL
ATTITUDES



LOWER BLOOD
PRESSURE

Early childhood

- 3 year-old with poor sleep and frequent tantrums
- Parents heard about a “nature-based preschool” which is outdoors all day
 - Wondering about benefits
 - Worried about safety, illnesses, injuries



Early childhood

- Typical preschool behavioral concerns
- Daily nature time can support healthy behaviors and development
- What indoor activities can be moved outdoors?
- Engage all caregivers



School age children

- 8-year-old with a recent diagnosis of ADHD, having challenges at school
- Parents are wondering about the role of screen time and physical activity in ADHD management



School age children

- Outdoor play can support physical activity, better sleep, green time, replace screen time...all important for children with ADHD
- Consider home, school, and extracurriculars (sports, camps)
- Additional considerations for children with behavioral challenges



Children with special health care needs

- 12-year-old with physical disabilities and other special health care needs
- Family doesn't spend much time outdoors because nervous about safety and access



Children with special health care needs

- Engage health care team – specialists, PT, OT, others in supporting nature time
- Community and local resources for more accessible nature
- Consider camps and other special programs, when available
- Nature time is beneficial for the whole family



Teens

- 15-year-old feeling overwhelmed by school, screens positive for symptoms of depression
- Spends most free time in her room, on devices



Teens

- Lifestyle factors are essential to consider for mental health
- Consider physical activity and nature time as adjunct to other evidence-based treatments
- Motivational interviewing to determine their interests & overcome barriers
- Adolescents may especially value activities with peers, jobs, internships
- Special time with family



Parks and greenspace: Pathways to health



Nature contact



Physical activity



Social connections



Happiness



Safety



Noise reduction



Climate resilience



Air quality

Barriers and challenges



Overscheduling, screens, weather, time, safety concerns, children with disabilities, health conditions, lack of access...

Park inequity nationwide

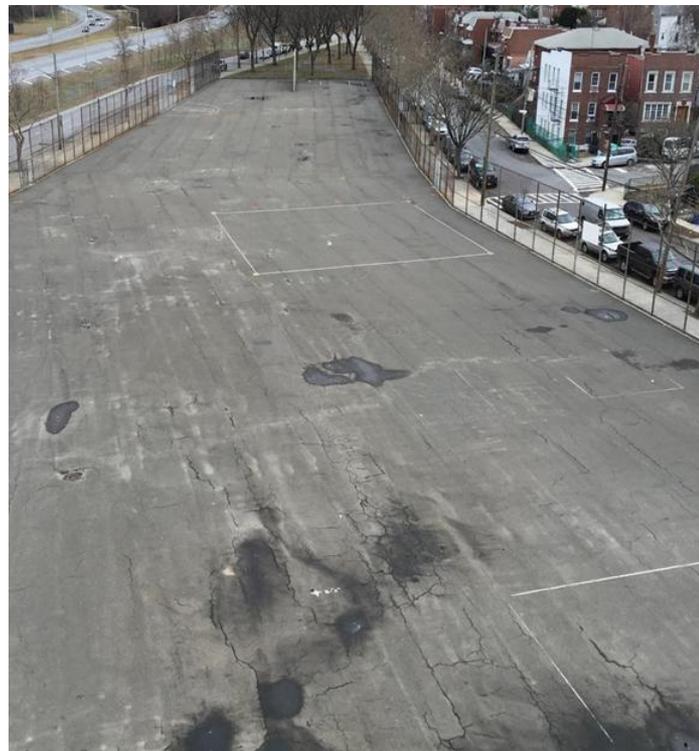
One third of people in the U.S. don't have a park within a 10-minute walk (0.5 mile) of home

28 million of those people are **children**.

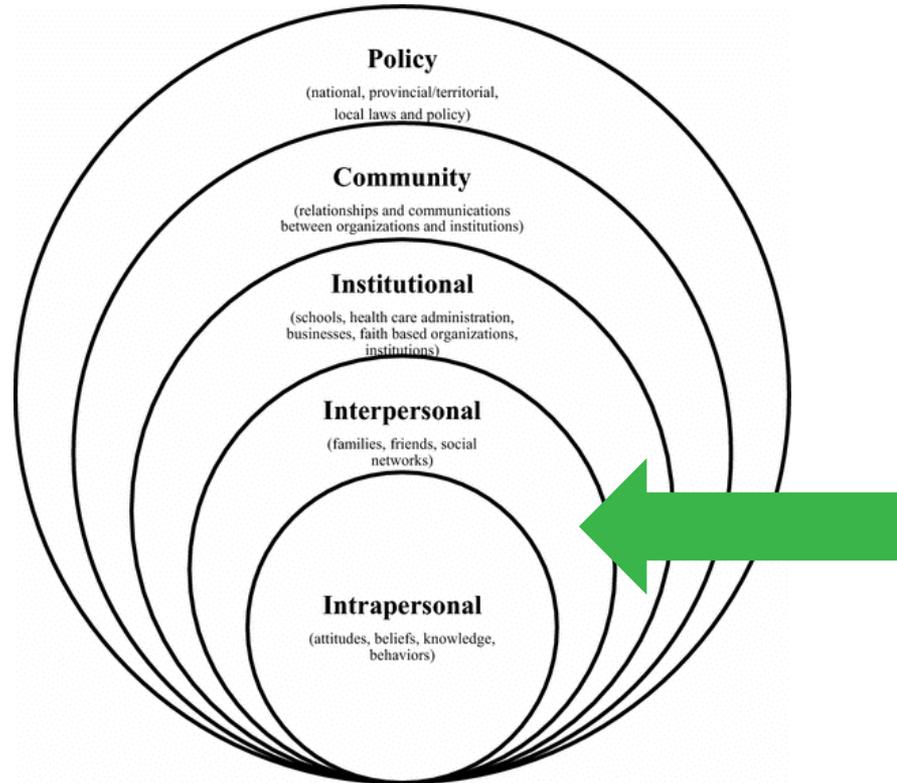
Access is marked by socioeconomic and racial disparities due to systemic injustices.

Parks in neighborhoods that serve majority non-white & lower income households tend to be:

- Smaller
- More crowded
- Lower quality
- Less safe
- Fewer amenities



Multi-level, multisector strategies are needed to support equitable nature contact



Parks Rx 2.0: *Project Nature*

THE JOURNAL OF PEDIATRICS • www.jpeds.com

ORIGINAL
ARTICLES



Promoting Children's Active Play in Nature via Primary Care

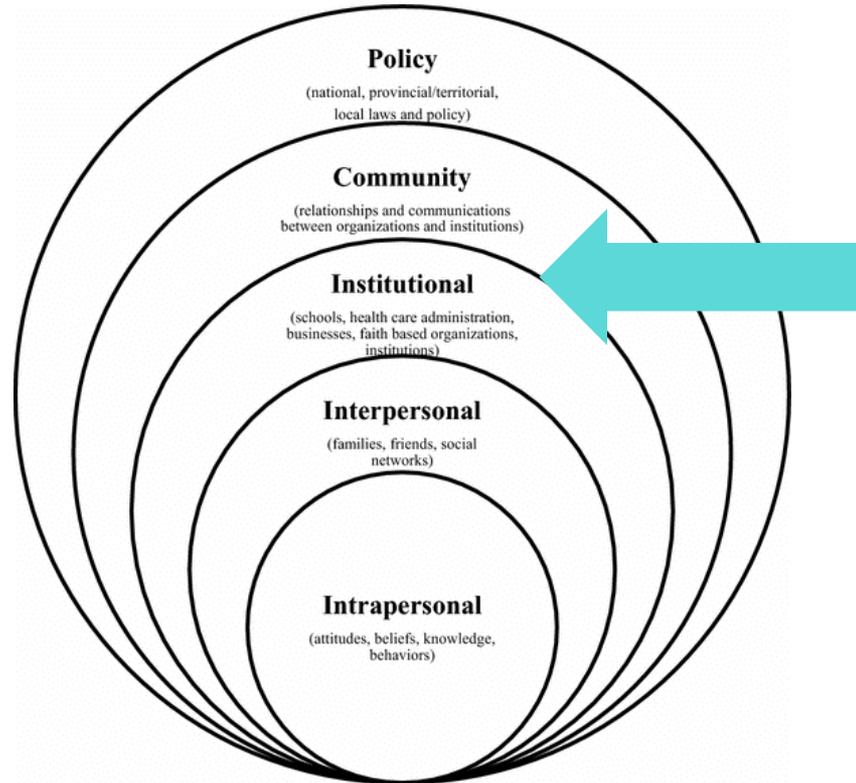
Georgia M. Griffin, MD¹, Liv Ellerton, BA², Marnie F. Hazlehurst, PhD², Kirsten Senturia, PhD¹, Emily Kroshus, ScD, MPH^{1,2}, Danette Glassy, MD³, Edna Maddalena, MA³, Kimberly Garrett, MPH², and Pooja Tandon, MD, MPH^{1,2,4}

Objective To assess the feasibility, acceptability, and utility of Project Nature (PN), an intervention during well-child checks, to promote children's active play in nature from the perspectives of parents and clinic staff.

Study design Six primary care clinics in Washinton State implemented PN, including anticipatory guidance from a clinician, a nature-based toy, and written/internet based family resources, during well-child checks for 1-10 year olds. We conducted quantitative surveys of different groups of parents before (control group, n = 154) and after (intervention group, n = 131) the implementation of PN at each clinic. We analyzed differences between the 2 groups using chi-square and Mann-Whitney U tests. Postintervention, we conducted qualitative interviews with 11 clinic staff members about implementation, coded the data, and conducted thematic analysis.

projectnaturewa.com

Multi-level, multisector strategies are needed to support equitable nature contact



Schoolyards: An Underutilized Resource

- Land acquisition for public parks is expensive, or land may not be available in many communities.
- Schoolyards are a major spatial resource in all U.S. communities and often underutilized, especially in communities that suffer from low access to green space and high rates of poor health.
- This is a scalable solution: **Opening schoolyards to the public would serve 37 million people in the U.S. who currently do not have access to parks.**



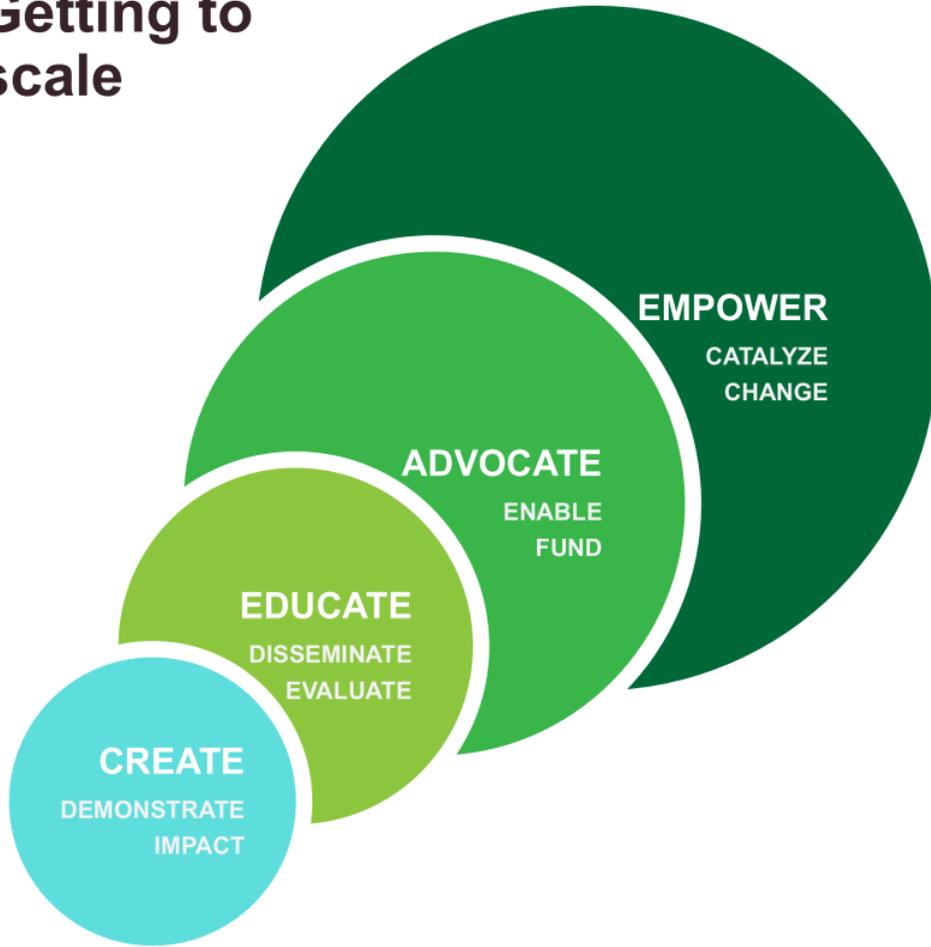
Schools occupy 2 million acres of land that present an unparalleled opportunity

In many **under-resourced communities, schoolyards are the only public outdoor space**, but are closed during non-school hours.

Most **public schoolyards are a sea of asphalt**, with little to no play equipment, that bakes under the sun and floods during rain.

Asphalt **traps heat, floods** during storms and releases **petrochemicals** into the atmosphere.

Getting to scale



To make Community Schoolyards the standard across the country, TPL has implemented a 4-part scaling strategy:

CREATE - Work with local school districts to create new Community Schoolyards to demonstrate impact.

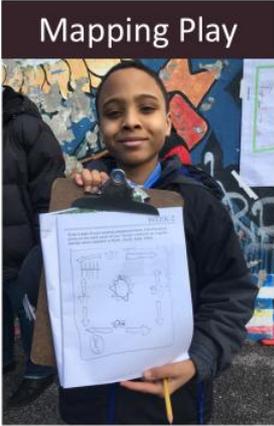
EDUCATE - Conduct research and disseminate findings on the impacts of Community Schoolyards on health, social connection, learning and climate resilience.

ADVOCATE- Advance programs with federal, state, local, and Tribal governments to support enabling public policy and funding.

EMPOWER- Give governments, school districts and nonprofits the tools to transform schoolyards and open them to the community independently.



Community Schoolyard Process



Summary of results from Tacoma, WA

- **52% Increase in Physical Activity:** Children in renovated schoolyards were significantly more active.
- **3x Greater Community Use (6x greater use by children)** after-school and weekends.
- Transforming schoolyards into shared green spaces can **support children's health** while creating **valuable outdoor resources for neighborhoods** with limited park access.



Multi-level, multisector strategies are needed to support equitable nature contact

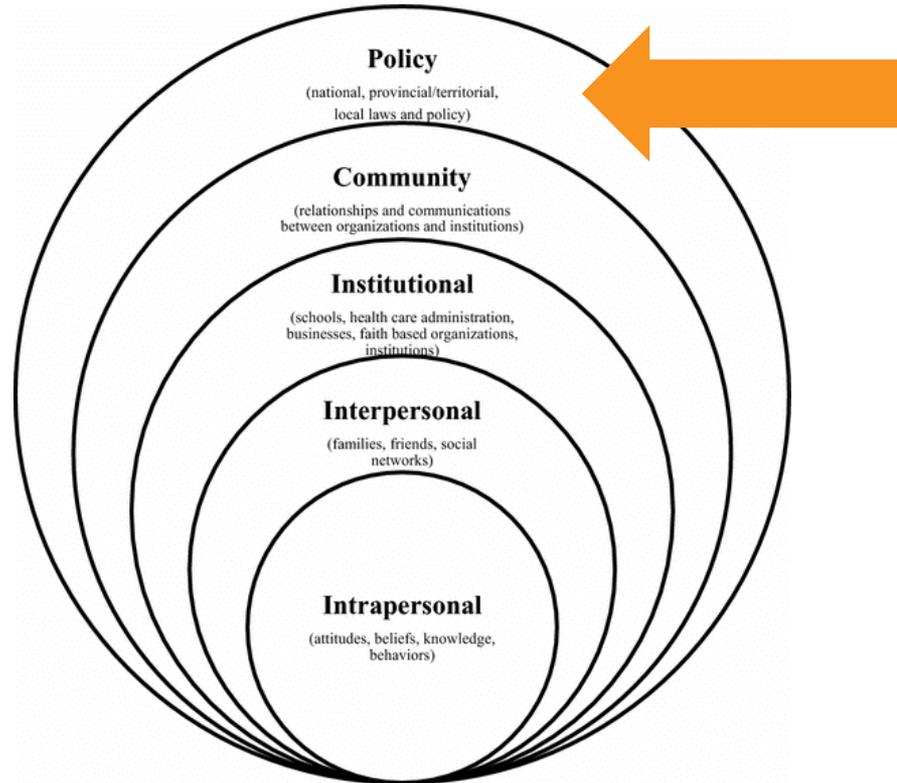




Photo: Christopher T. Martin

Health Funding for Parks and Greenspace

An Innovative Community Health Strategy

Parks and greenspaces are highly effective in promoting physical, mental, and social health. Yet park departments often struggle to secure sufficient funding to create, maintain, and program these spaces, especially in communities with the greatest needs. At the same time, nonprofit hospitals are required to invest in community health but typically do not consider parks and greenspaces as part of these efforts. This work highlights a promising opportunity hiding in plain sight: hospitals can use community benefit funds to invest in parks and greenspaces—proven, evidence-based strategies to improve health and advance equity. Drawing on examples from across the U.S., our findings show that this approach is feasible and offers hospitals a new way to invest upstream in health, while providing park agencies and advocates an innovative source of funding.

Health Funding for Parks and Greenspace: An Innovative Community Investment Strategy — Bryce Puesta Takenaka, Hareen Seerha, Howard Frumkin, Pooja Sarin Tandon (2025) <https://doi.org/10.1016/j.jhealeq.2025.100005>

Study Purpose

We conducted a study to examine how parks and greenspaces are currently addressed in hospital Community Health Needs Assessments (CHNAs) and to explore opportunities for hospitals, park agencies, and community organizations to collaborate in advancing community health and health equity through parks.

Methods

We reviewed CHNAs from 51 large nonprofit hospitals located in U.S. cities ranking in the lower half of the 2024 Trust for Public Land ParkScore® Index. We analyzed whether and how parks and greenspaces were included in assessing community health. To complement this analysis, we conducted interviews and focus groups with 29 representatives from hospitals, park agencies, and community organizations to understand perceived benefits, barriers, and opportunities for cross-sector collaboration.

Health Dollars for Parks and Greenspace

Health Funding for Parks and Greenspace: An Innovative Community Investment Strategy — Bryce Puesta Takenaka, Hareen Seerha, Howard Frumkin, Pooja Sarin Tandon (2025)

Health Dollars for Parks and Greenspace

- Parks are widely recognized as valuable for health.
- Parks are inconsistently addressed in CHNAs.
- Limited attention reflects capacity constraints, not opposition.
- Examples of successful collaboration exist.
 - Several cities demonstrated promising cross-sector collaborations such as community gardens, green schoolyards, youth sports complexes, and health programs in parks.
 - Even modest improvements such as lighting, benches, tree canopy expansion, trail connections, and community programming can produce meaningful health benefits.
- The study offers practical strategies for hospitals, park agencies, and community groups to partner more effectively, integrate park data into CHNAs, and direct health dollars toward advancing park equity and health equity.



Happiest Outside.



THANK YOU!

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