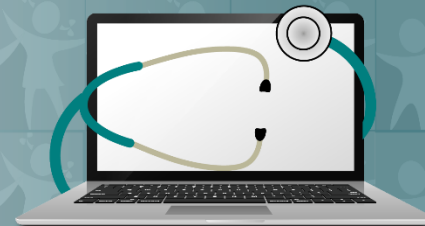




PEHSU NATIONAL CLASSROOM

Pediatric Environmental
Health Specialty Units



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Webinars

Series of scientific webinars that provide a forum for discourse on scientific issues.

Live and On-Demand

Case Conferences
Journal Clubs
Grand Rounds

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Online Courses

Evidence-based online courses on a variety of children's environmental health topics.

Interactive and Self-Paced

CE Available



Resource Catalog

Fact sheets, journal publications, reports, and other resources for parents, community members, patients and healthcare professionals

Topics included:
Air Quality, Pesticides,
Natural Disasters, BPA,
Mold, Lead, Mercury



DC Park Prescription: A Scalable Model for Medicine & Public Health

Robert Zarr, MD, MPH

Park Rx Director, Unity Health Care, Inc.

National Park Rx Advisor, National Park
Service

Presenter Disclosures

Robert Zarr, MD, MPH

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

“No relationships to disclose”

Objectives

1. Review health reasons to spend time in Nature
2. Learn how DC Park Rx was planned, developed and implemented at a "doctor's office"
3. Review recently published data on DC Park Rx
4. Summarize next steps for expansion and research of Park Rx

Chronic disease of epidemic proportions

- 133 million Americans currently suffer from a chronic disease (coronary heart disease, stroke, high blood pressure, Type 2 diabetes, and mental health conditions)
- People suffering from obesity are at increased risk of high blood pressure, high cholesterol, Type 2 diabetes, Coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea, cancer, and mental illness
- Source: <http://www.cdc.gov/healthyweight/effects/>

Disease Burden cont.

- 10 million adults suffer with serious mental illness.
- 12 million children and 78 million adults are obese.
- 29 million Americans suffer with diabetes.
- 70 million American adults have high blood pressure.
- For every dollar spent on health care, 86% is spent on patients with one or more chronic disease.



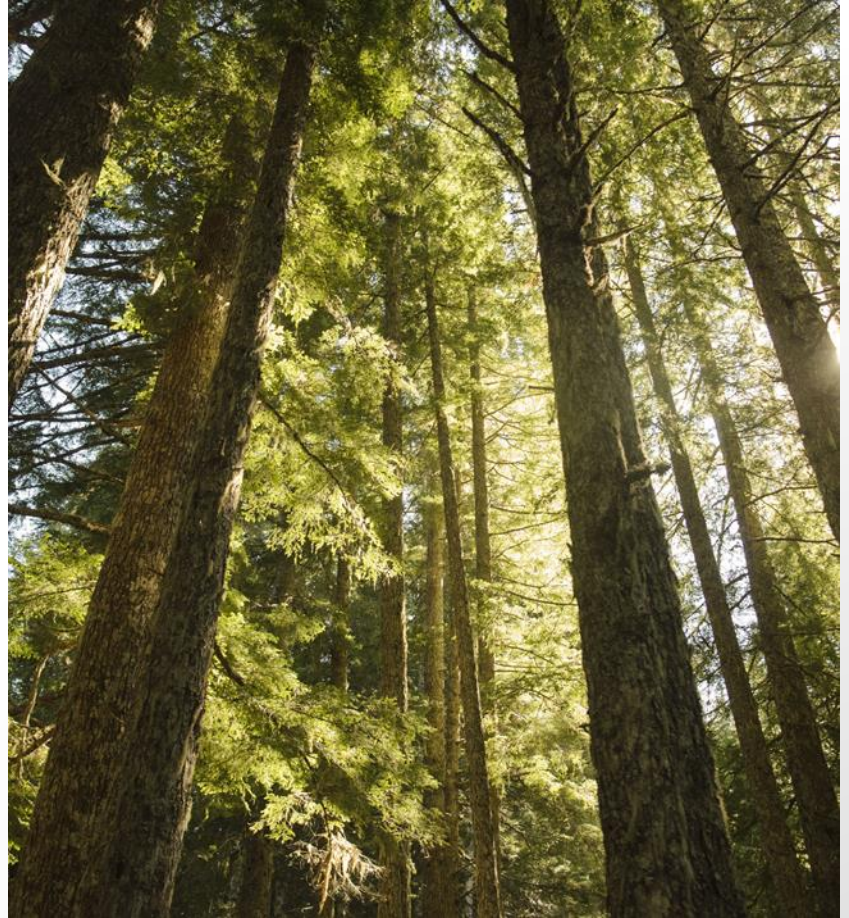
Nature's effects on Mental Health

- Spending time in nature is linked with decreased anxiety, rumination, and negative affect.
- Green spaces are restorative and boost attention, while viewing concrete worsens attention during tasks.
- Walking in parks improved focus in children with attention deficits.



Nature's effects continued...

- Viewing and spending time in green spaces lowers cortisol levels and blood pressure.
- Access to parks reduce risk of being overweight and obese.
- Living in a neighborhood with more opportunities for physical activity is associated with lower risks of Type 2 Diabetes.
- Living near green spaces reduces mortality even when adjusted for sociodemographic factors.



- **DC Park Rx** is a Community Health Initiative whose mission is to prescribe parks to prevent and treat chronic disease and promote wellness



National Park Service
U.S. Department of the Interior



THE GEORGE
WASHINGTON
UNIVERSITY
WASHINGTON, DC



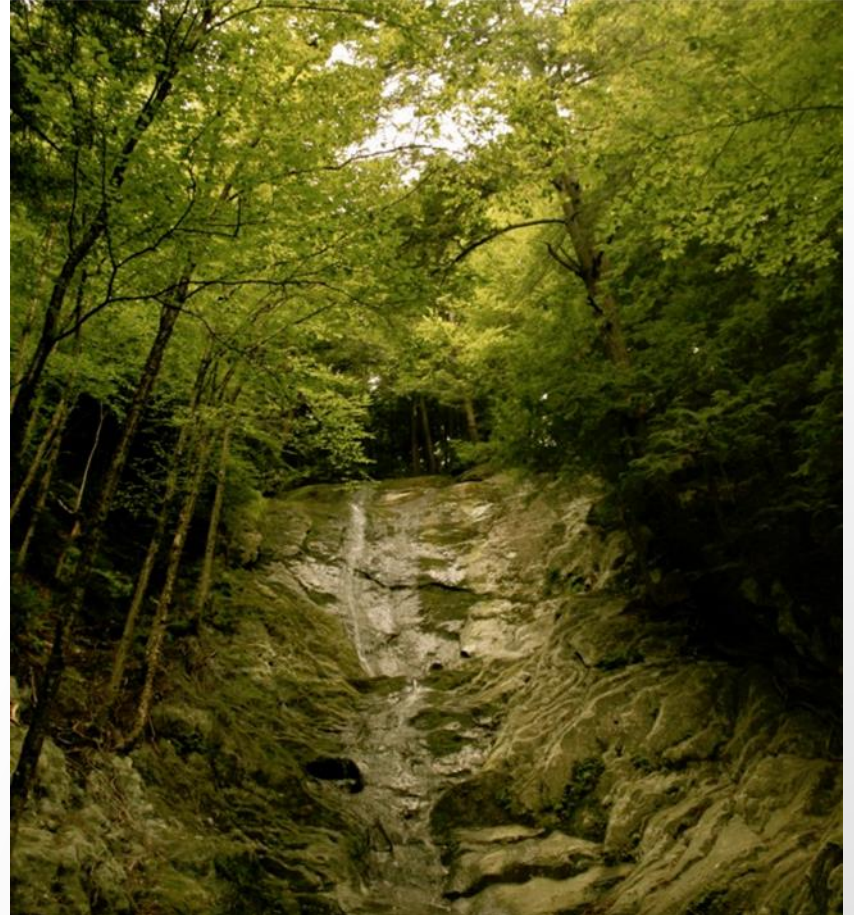
National Environmental
Education Foundation
Knowledge to live by



HHS.gov

What have we accomplished?

- Developed standardized park rating tool
- Developed Park Pages searchable park database linked to EHR (electronic health record)
- DC Park Rx “went live” on July 1, 2013
- DC Park Rx fully integrated within Unity Health Care, Children’s National Health Centers, and CCI health and wellness services
- Current patient population reach of ~200,000 and ~300 providers in the National Capital Region



- One click away...

A&P 1-2

A&P 3-4

A&P 5-6

A&P 7-8

A&P 9-10

A&P 11-12

Care Plan

Reconciliation

Help

Select Specialty

Pediatrics

Assessment #1 Select problem; enter assessment, orders, and meds; then click 'Commit Assessment'

Prob List

BODY MASS INDEX PED >=EQUAL TO 95TH % AGE (ICD-V85.54) (ICD-V85.54)

View/Insert Prior

Commit Assessment

Clear All

Assessment: ☐ New ☐ Improved ☐ Unchanged ☐ Deteriorated ☐ Comment Only

.parkrx

Orders:

Ofc Vst, Est, Level III (99213) (99213)

New Meds

Change Meds

Meds auto insert

R

New Orders

Orders auto insert

R

Insert Template

R

Print Handout

Assessment #2 Select problem; enter assessment, orders, and meds; then click 'Commit Assessment'

View/Insert Prior

Commit Assessment

Clear All

Add All Meds to Note

Remove New Meds from Note

Rx Monitoring/Alerts

Rec. Interventions

Rec. Tests

Orders

Rx Refills

HPI

Entry

PMH

FH-SH

Risk Factors

ROS

VS

PE

Problems

CPOE ADD

Instructions/Plan

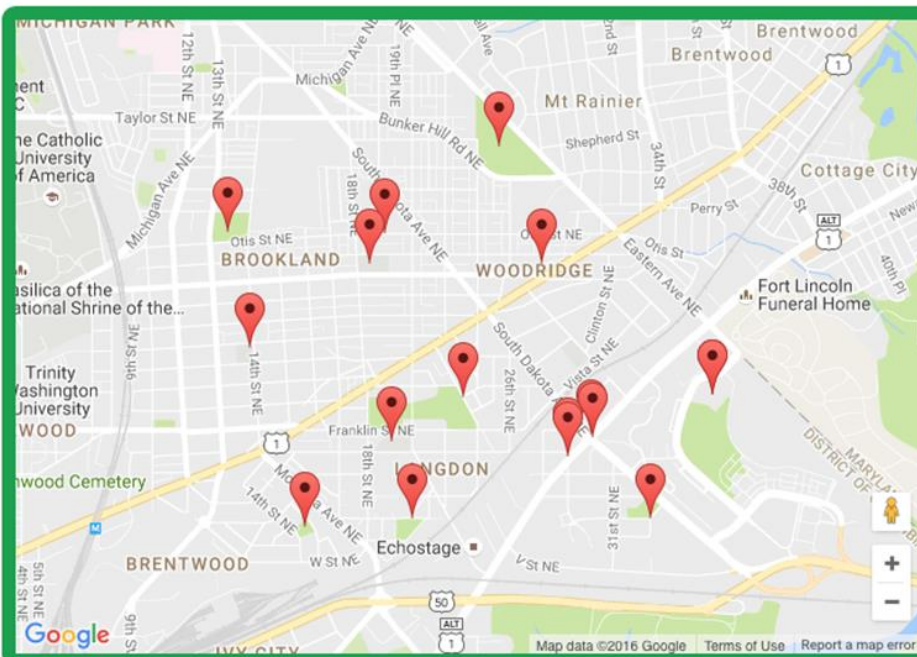
Copyright

Enter Address or Zipcode

Go >

WITHIN RADIUS: ☐ 0.25 MILE ☐ 0.5 MILE ☒ 1 MILE ☐ 2 MILES ☐ 3 MILES ☐ 5 MILES
☐ ALL PARKS

17 parks [SHOW FILTER](#)



SORT BY: ☒ Distance ☐ Park Name

- ☐ 0.8mi Barnard Hill Park
- ☐ 0.7mi Brentwood Recreation Center
- ☐ 0.5mi Burroughs Elementary
- ☐ 0.8mi Dakota Playground
- ☐ 0.6mi Dwight A. Mosley Sports Com...
- ☐ 0.5mi Loomis Park
- ☐ 1.0mi Fort Bunker Hill Park

☐ CHECK TOP 5

VIEW SELECTED PARKS

[DC Parks and Rec](#)

[National Park Service](#)

[Montgomery County Parks](#)

[National Zoological Park](#)

[US National Arboretum](#)

[US Botanical Garden](#)

[Prince George's County Parks and Rec](#)

[Fairfax County Parks and Rec](#)

[Destination DC Nature and Outdoors](#)

[November Project DC](#)

[Walk with a Doc](#)

[DC SCORES](#)

[National Park Rx Initiative](#)

[Biophilic Cities](#)

[Institute at the Golden Gate](#)

[National Rec and Park Association](#)

[National Environmental Education Foundation](#)

[Children And Nature Network](#)

WITHIN RADIUS: ☐ .25 MILE ☐ .5 MILE ☒ 1 MILE ☐ 2 MILES ☐ 3 MILES ☐ 5 MILES
☐ ALL PARKS

17 parks [HIDE FILTERS](#)

GENERAL

Overall Park Size

- ☐ Less than area of a basketball court
- ☐ Between basketball court and football field size
- ☐ Larger than a football field

Overall Park Shade

- ☐ 0-20%
- ☐ 20-40%
- ☐ 40-60%
- ☐ 60-80%
- ☐ 80-100%

Pets

AMENITIES

Park Amenities

- ☐ Benches/Seating
- ☐ Drinking Fountains
- ☐ Grills
- ☐ Picnic Tables
- ☐ Port-a-Potties
- ☐ Restrooms
- ☐ Trash Cans

Food For Sale

- ☐ Snack Shop
- ☐ Vending Machine
- ☐ Gift Shop
- ☐ Restaurant
- ☐ Food Truck

OPEN SPACE/PLAYGROUND

Size of Open Space:

- ☐ Less than area of a basketball court
- ☐ Between basketball court and football field size
- ☐ Larger than one football field in size

Activities Allowed

- ☐ Play Frisbee Or Soccer
- ☐ Go for a jog
- ☐ Have a picnic

Playground Condition

- ☐ 1 (not good)
- ☐ 2

TRAILS

Overall Trail Condition

- ☐ 1 (not good)
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 (very good)

Overall Trail Difficulty

- ☐ Easy
- ☐ Moderate
- ☐ Difficult
- ☐ Very Difficult

Trail Activities

- ☐ Bicycling allowed

SPORTS AMENITIES

Sports Amenities

- ☐ Baseball Field
- ☐ Basketball Court
- ☐ Biking
- ☐ Birdwatching
- ☐ Canoeing
- ☐ Crosscountry Skiing
- ☐ Fishing
- ☐ Fitness Center
- ☐ Football Field
- ☐ Golf
- ☐ Gymnasium
- ☐ Handball
- ☐ Hiking

VIEW SELECTED PARKS

Kalorama Park

1903 Belmont Rd, NW, Washington, DC 20009



DC Parks and Rec | (202) 753-1555

HOURS: Dawn to Dusk

GETTING THERE:

Parking, Bus, Metro, Bike Racks

Bus Route: #90, 96, DC98, L2, 42

Handicap Accessible: Yes

GENERAL INFO:

Pets: Allowed, On Leash

Benches: 10+

Restrooms: No

Picnic Tables: <5

Overall Park Size: Less than area of a basketball court

Special Features/Comments: The recreation center staff schedule a multitude of programming events for children throughout the year, including a Valentine's Day party, a fall picnic, a Halloween party, and a winter holiday party. Other youth activities in the park include the Department's summer camp. The Community Garden located in the Park, run by a separate group, is available for neighbors to use for growing vegetables and flowers.



OPEN SPACE/PLAYGROUND:

Playground Cleanliness: 5 (very clean)

Playground Surface Type: Wood chips

Playground Condition: 5 (very good)

Playground Shade: 20-40%

TRAILS:

Overall Trail Condition: 4

Overall Trail Cleanliness: 4

Overall Trail Difficulty: Easy

Trail Activities:
Hiking/walking/running/jogging allowed

Trail Layout: Loop

Trail Distance: 1/4 mile

Trail Extras: Lighting, Benches/rest areas

Trail Surface Type: Concrete

Trail Slope: Flat/Gentle

Trail Cross Slope: Flat/Gentle

Trail Width: > 4 ft

SPORTS AMENITIES:

Sports Amenities: Basketball Court, Open Space, Playground



Care Plan

Reconciliation

Help

Select Specialty

Pediatrics

Assessment #1 Select problem; enter assessment, orders, and meds; then click 'Commit Assessment'

Prob List

BODY MASS INDEX PED >=EQUAL TO 95TH % AGE (ICD-V85.54) (ICD-V85.54)

View/Insert Prior

Commit Assessment

Clear All

Assessment: ☐ New ☐ Improved ☐ Unchanged ☐ Deteriorated ☐ Comment Only

Parks Rx Provided Today

Orders:

Ofc Vst, Est, Level III (99213) (99213)

New Meds

Change Meds

Meds auto insert

R

New Orders

Orders auto insert

R

Insert Template

R

Print Handout

Assessment #2 Select problem; enter assessment, orders, and meds; then click 'Commit Assessment'

View/Insert Prior

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Rx Monitoring/Alerts

Rec. Interventions

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Rx Refills

HPI

Entry

PMH

FH-SH

Risk Factors

ROS

VS

PE

Problems

CPOE ADD

Instructions/Plan

Copyright

How to prescribe parks in a clinical setting

- Healthcare provider (physician, nurse, social worker, nurse practitioner, case manager, etc.) recognizes one or more chronic disease factors in patient/family
- Healthcare provider reviews daily routine of his/her patient/family in terms of activity in green space.
- Healthcare provider assesses readiness and willingness of patient to spend more time in green space.
- Healthcare provider accesses www.DCParkRx.org website by using quick text function anywhere in the electronic health record.
- Healthcare provider reviews Park options (real-time) with patient/family to decide which park is the most appropriate for patient/family to visit.

How to prescribe parks in a clinical setting cont.

- Healthcare provider and patient/family discuss and agree on frequency of visits to park per week, duration of time to be spent in park, and activities to engage while at the park.
- Healthcare provider documents the specificity of the park prescription (name of Park, frequency, duration, activities) in the treatment or preventive medicine section of electronic health record.
- Healthcare provider and patient/family agree on date and time of next appointment.
- Healthcare provider either prints or shares electronically (via patient portal) the Park Page (Park summary) and the patient summary, which includes the treatment plan (name of park, frequency, duration, activities).

- DC Park Rx is a low-cost intervention that utilizes a known, generally trusted, and accessible resource – parks – to influence positive health outcomes by way of the provider-patient relationship in the health care setting



...but is Park Rx scalable?

- Ask for a meeting with CMO, CEO, CIO of a health provider organization (Community Health Center, Hospital system, group practice)
- Invite park agency partners (already established partnerships) surrounding the Geographic area of the health provider organization.
- Introduce the concept of prescribing parks in a healthcare setting & demonstrate:
 - Scientific evidence to support prescribing nature to improve human health and
 - Ease of use--show how easy it is to integrate both into EHR & into the daily routines of providers.
- Arrange a separate meeting with the park agency GIS officer to import park attributes into Park Rx website/database.
- Create a locale of Park Rx for that region within DCParkRx.org
- Arrange a separate meeting with the CIO of the health provider organization to strategically place DCParkRx.org inside EHR.
- Requests screen shots/casts of EHR from CIO to use in upcoming in-service
- Request from CEO/CMO opportunities to do Park Rx in-service at ALL STAFF meeting. Take Promotionals (posters, stickers, etc.) and distribute to staff.
- FOLLOW UP!! with CEO/CMO/CIO to guarantee follow through.

next steps for DC Park Rx...

- Continue expansion nationally (850,000 licensed physicians, and millions more non physician providers)
- Optimize technology to improve communication & functionality
- Evaluate & research park utilization, user experience, and health outcomes

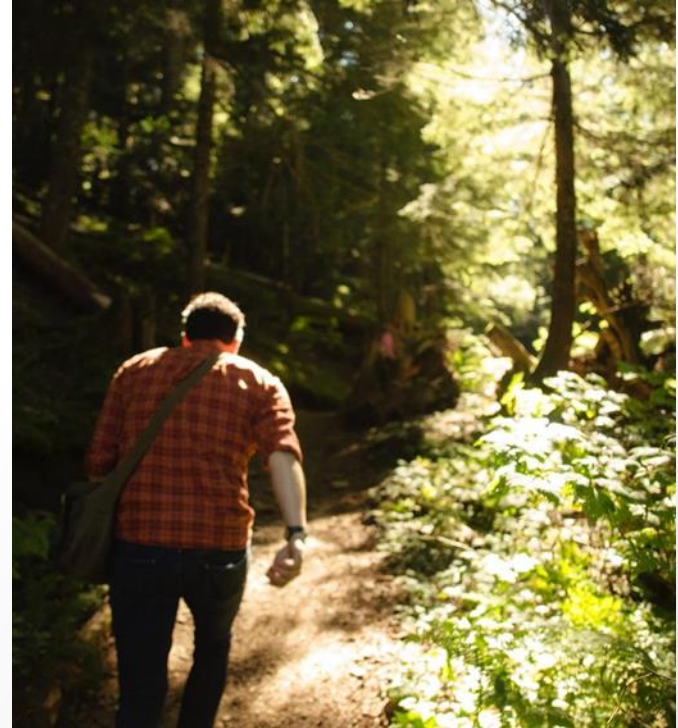


ParkRxAmerica?

- CT-CHC statewide FQHC
- VA-William & Mary
- WV-Harper's Ferry National Historic Park, US Fish and Wildlife, UWV
- MD-Johns Hopkins, St. Agnes, Kaiser, MRPA, Frederick County Parks/Dr. Lee
- NYC Bronx-Bronx Institute for Family Health
- NV-Southwest Medical Associates/NPS
- CA-Los Angeles County DPH

Hooked yet?

- Partner with your park agencies (local, state, county, and national) to import park attributes to www.DCParkRx.org ✓
- Link www.DCParkRx.org to electronic health record (EHR) of organizations providing health care ✓
- In-service health organization's ALL STAFF meeting
- Start prescribing! ✓



Robert Zarr, MD, MPH

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Staff Pediatrician and Director of Park Rx, Unity Health Care, Inc.

www.DCParkRx.org

DocZarr@DCParkRx.org

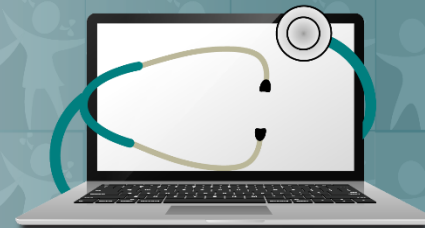
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