Nature Rx: Go Out and Play
Sitting is the New Smoking
Outdoor Play

Children who spend more time outside are more **physically active**!

Children who spend more time outside are less likely to be overweight.

Nature is…

**Good for the Body**
- Physically active
- Lowers blood pressure
- Reduces Stress
- Boosts immune system

Nature is…

Good for the Mind

- Improves attention
- Improves mood
- Increases working memory

Children spend 1% of their free time outdoors

On average, only 30 minutes of unstructured time outdoors each week.

Children spend 7.5 hours per day in front of screens.

Rideout, VJ et al. Kaiser Family Foundation Report. 2010
Engages the Whole Family

Nature-based Recreation vs. Sports
Meets People Where They Are

Nature-based Recreation vs. Sports
Meets People Where They Are

Nature-based Recreation vs. Sports
Cultivating Life-long Active Behaviors

Nature-based Recreation vs. Sports
Barriers to Outdoor Play

- Time constraints
- Perception of Safety
- Maintenance of parks
- Crime
- Access
- Values
Nature Rx | Barriers to Outdoor Play

Barriers

- Time constraints
- Perception of Safety
- Maintenance of parks
- Crime
- Access
- Values
2013 White Paper on Safety in Philadelphia Parks and Rec Centers:

“What are the ingredients or features that create a safe park?”

#1 response: “engagement/interaction”

Rated higher than “physical environment” or “security”
Barriers to Outdoor Play

- Time constraints
- Perception of Safety
- Maintenance of parks
- Crime
- Access
- Values
2008 UPENN study:

32% of subjects living within a ½ mile of one of 6 parks/rec centers studied in the city, reported never having visited the park.

WHY? Top 3 answers:

1. Time
2. Work Commitments
3. Didn’t know the park existed
2013 PA Outdoor Recreation Survey asked Philadelphians:

“What is the single most important thing that parks and outdoor recreation organizations could do to help you participate in outdoor recreation in Pennsylvania?”

“information dissemination” was in the top 3 most-cited answers
Barriers

- Time constraints
- Perception of Safety
- Maintenance of parks
- Crime
- Access
- Values
Barriers: Values

CHOP Community Needs Assessment asked parents:

“What is your primary source of health information?”

89% - physician or health care provider

Rated higher than friends, family, internet
Nature Rx: Go Out and Play
Nature Rx | Strategic Planning & Implementation

Stakeholder & Partner Organizations

**Non-Profit Organizations**
- National Environmental Education Foundation
- Smith Memorial Playground
- The Circuit Coalition
- Philadelphia PlayWorks
- Bicycle Coalition of Greater Philadelphia
- The Workshop School
- Health Promotion Council
- Physicians for Social Responsibility
- Dela. Valley Assoc. for the Education of Young Children
- WGBH Boston/ PBS Kids

**Gov’t Agencies**
- Philadelphia Department of Public Health
- PA Dept. of Conservation and Natural resources
- US Forest Service, Phila Field Station
- John Heinz Wildlife Refuge at Tinicum
- National Park Service
- Delaware Valley Regional Planning Commission
- Philadelphia Planning Commission, Healthy Communities

**Academic Institutions**
- University of Pennsylvania
- University of the Sciences
- Drexel University

**Businesses**
- Well Coin
- Let’s Go Outdoors
Goal 1
Increase public awareness about the health benefits of nature and outdoor play.
Goal 2
Enable Philadelphia families to find accessible and meaningful opportunities for outdoor play.
Goal 3
Deepen our understanding of how this type of intervention impacts short-term behavior and health.
Where to go?
- close
- safe
- accessible
Where to Go?

- Searchable map neighborhood parks, trails, and green spaces
- Conduct park/trail audits
Kolorama Recreation Center
DC Department of Parks and Recreation

1875 Columbia Road, NW

CONTACT INFORMATION:
(202) 727-6000

HOURS:
Open:
Dawn to Dusk
Some areas open only:
Mon: Fri: 3:00 pm – 9 pm
Sat: 10 am – 4 pm
Sun: Closed

Pets: Allowed on a leash

GETTING THERE:
Metro: Approximately 1/3 mi
walk from either Dupont or
Adams Morgan/Woodley Park
(Peace Line)
Bus: 42, 43, 50, 52, 96, 98,
H1, L2, X3 – stop at Columbia &
Mintwood right outside park
Parking: Limited street
parking
Handicap accessible: YES

Things to Do!
* Walk your dog
* Play frisbee
* Play basketball
* Soccer
* Go for a jog
* Have a picnic

SPORTS AMENITIES:
Basketball courts and open space

PLAYGROUND:
Extremely clean and in excellent condition

PATH:
Difficulty Rating: Easy

- 0.25-mile loop path with a flat slope.
- Very clean with benches and rest areas.

PARK INFORMATION:

SAFE – Large with open spaces

SAFETY – Safe during the day, well-

PARK HAS:
- Benches, trash cans, picnic tables

APPEARANCE – The park is a mix of sun and shade provided by trees. There
is mild street noise.

SPECIAL FEATURES: Community Garden
What to do there?
- planned events and programs
- self-guided opportunities for families
What to Do?

- Event calendar
Nature Rx  |  Resource Development

What to Do?
- Event calendar
- Self-guided fun via mobile device
Nature Rx | Resources: Summary

- Nature Rx website with searchable database of parks, trails, greenspaces.
- “Park Pages” for each park, trail, and greenspace that integrates data from audits and events.
- A suite of digital resources facilitating self-guided outdoor play.
- Educational materials highlighting the health benefits of nature.
Increasing Partner & Stakeholder Reach
Clinical Snapshot

- Questions and tools integrated into EMR & workflow
- In-office access to Nature Rx database
- Provide specific counseling on where, how often and what to do at parks/trails
- Print Park Page and other educational materials and resources with end of visit paperwork
Nature Rx | Incentives

Wellcoin Partnership

• Earn Wellcoins for engaging in outdoor activities

• Use Wellcoins to buy fabulous rewards

• Connect with fun, thriving health community
Nature Rx | 4 Year Pilot

Four CHOP Clinics:
- Roxborough Primary Care
- Cobbs Creek Clinic
- Karabots Clinic
- South Philly Clinic
4 Year Pilot

First Year of Implementation:
- Roxborough Primary Care
- Cobbs Creek Clinic

Year 2 of Implementation adding:
- Karabots Clinic
- South Philly Clinic

Targeting 20% of well-visit patients:
- 2,800 patients in yr 1
- 7,400 patients in yr 2
Nature Rx | Project Status & Next Steps

Spring/Summer 2015

• Engage more community stakeholders
• Surveys and focus groups to test messaging and tools
• Park/trail audits
Fall/Winter 2015-16
• Webpage and database development
• Educational materials development
• Continue Park/trail audits
Spring/Summer 2016
• CHOP clinician training
• CHOP EMR integration
• Begin distributing prescriptions at first two clinics
• Continue park audits
children need nature

Nature Rx  Thank you!
• Partnership between environmental education, public health and pediatric healthcare.

• Builds new capacity through information sharing, resource mapping, education.

• Combines innovative technology and real connection with local green spaces.

• Enhanced “park prescription” program originates in medical home, engages families beyond the walls of the doctor’s office.
Environmental Literacy Gap

- 66% of the public fails a basic environmental quiz
- A whopping 88% fails an energy quiz

Environmental Literacy Gap

- 45 million Americans think the ocean is a source of fresh water
- 130 million believe that hydropower, not coal, is our top energy source

Meets People Where They Are

Nature-based Recreation vs. Sports
Nature Rx | Pilot Clinics: Demographics

- **COBBS CREEK - WEST PHILLY**
  - Medicaid: 73%
  - Private: 26%
  - Self-Pay: 1%

- **KARABOTS - WEST PHILLY**
  - Medicaid: 74%
  - Private: 25%
  - Self-Pay: 1%

- **ROXBOROUGH - NW PHILLY**
  - Medicaid: 83%
  - Private: 16%
  - Self-Pay: 1%

- **SOUTH PHILLY CLINIC**
  - Medicaid: 70%
  - Private: 29%
  - Self-Pay: 1%
What have we learned?

- study clinician and patient behavior change
- study short-term health and wellness impacts
International Initiatives

Healthy Parks, Healthy People Global (HPHP)

Human Wellbeing

Building Communities

Participation & Learning

Conserving Nature
International Initiatives

International Society of Nature and Forest Medicine
The power of the forest heals the mind and the body.
Healthy Parks Healthy People connects people to parks through health promotion by:

- **Forging new partnerships** that establish the health and medical care community’s use of parks as a healing tool and a vital component of healthy living;

- **Providing access** to parks and healthy visitor experiences;

- **Enhancing and protecting** park programs, facilities, and environments as places for people to have fun, learn something and derive health benefits;

- **Reaching diverse, multicultural audiences** and engaging the next generation of national park stewards;

- **Contributing to the advancement of science** by implementing the Healthy Parks Healthy People Science Plan.
Nature Rx: Models in Sister Cities

Boston: Outdoor Rx
Mass General Hospital for Children and the Appalachian Mountain Club
Nature Rx: Models in Sister Cities

Washington DC: DC Park Rx
National Park Service, NEEF and Unity Health Systems
After the Intervention:

- Parents reported significantly more patient/physician conversations about importance of physical activity. \( (P = 0.017) \)

- Patients and their families spent an average of 22 more minutes per week on physical activity \( (P<.01; n=317) \).

- Patients and their families spent an average of 6 more days per year at a park for at least 30 minutes after the intervention \( (P<.01; n=317) \).

- The Park Rx intervention increased parents’ belief that physical activity affects the health of their child \( (P=0.025; n=317) \).
Nature Makes Us Feel Better

- improved mood and feelings of vigor
- reduced measures of physiological stress compared to city walks
  - Reduced cortisol levels
  - Lower heart rate
  - Improved sleep
  - Reduced blood pressure

Nature Makes Our Minds Work Better

Relieves attentional fatigue
- improves focus
- improves mood
- improves self-regulation
- increases working memory

Phytoncides
Chemicals from trees & plants that impact your mood and your immune function

More than just a walk in the park
Nature is...

Good for the Soul
• Connection to life
• Emotional resilience
Strategic Planning Process

- Community informed and driven
- Pilot design based on existing knowledge of families, healthcare providers and communities shared by partners and stakeholders.
- Continuous improvement based on iterative feedback and formal reassessment.
Nature Rx | Vision

- Collaborate
- Educate
- Activate
- Impact
CHOP CLINICS FOR PILOT

- Roxborough
- Cobbs Creek
- Karabots
- South Philly
Nature Rx  |  Pilot Clinics: Demographics

COBBS CREEK - WEST PHILLY

- American Indian/AK Native: 0%
- Asian: 0%
- Black: 0%
- Native Hawaiian/Pacific Islander: 0%
- Two or More: 0%
- Unknown: 0%
- White: 95%

ROXBOROUGH - NW PHILLY

- American Indian/AK Native: 0%
- Asian: 0%
- Black: 23%
- Native Hawaiian/Pacific Islander: 1%
- Two or More: 0%
- Unknown: 0%
- White: 66%

KARABOTS - WEST PHILLY

- American Indian/AK Native: 0%
- Asian: 4%
- Black: 7%
- Native Hawaiian/Pacific Islander: 1%
- Two or More: 0%
- Unknown: 0%
- White: 86%

SOUTH PHILLY CLINIC

- American Indian/AK Native: 0%
- Asian: 0%
- Black: 18%
- Native Hawaiian/Pacific Islander: 26%
- Two or More: 10%
- Unknown: 1%
- White: 45%