Access to Experiences - Not Acres
Measuring the Public Realm
Energized Public Spaces (EPS) Plan
Park Rx America Program

Speakers: Cristina Sassaki, AICP, LEED BD+C, EPS Lead Planner/Manager
Christopher McGovern, GIS Manager
John Henderson, AICP, Park Rx America Executive Director
HOW ARE WE ADDRESSING HEALTH?
ACCESS TO EXPERIENCES, NOT ACRES

PEOPLE
(CONSUMER)

PARK RX
PROGRAM
(PROMOTER)

HEALTH

PARKS/PUBLIC SPACES
(PROVIDER)

ENERGIZED
PUBLIC SPACES PLAN
(DATA-DRIVEN TOOL)
WHAT WILL YOU LEARN?

How Park Rx America **promotes the Health Benefits** of Parks and Public Spaces

**How** the EPS Plan **evaluates access** to public spaces

Prioritize **where** a Park system should allocate its limited resources
OUTLINE

1. Health Overview
2. Park Rx Program
3. Montgomery Parks’ Energized Public Spaces (EPS) Plan Outcomes
4. EPS Plan: How we did it?
5. Debate/Q&A
MONTGOMERY COUNTY

Most populous county in MD

2017: 1,058,800

1990: 765,500 +293,300

38%
MONTGOMERY COUNTY
HEALTH OVERVIEW
## OVERVIEW: MONTGOMERY HEALTH

**MONTGOMERY COUNTY, MD (2018)**

<table>
<thead>
<tr>
<th>Montgomery County</th>
<th>Top US Performers</th>
<th>MONTGOMERY COUNTY, MD (2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 %</td>
<td>26%</td>
<td>Adult Obesity BMI ≥ 30</td>
</tr>
<tr>
<td>16 %</td>
<td>20%</td>
<td>Physical Inactivity Age ≥ 20 reporting no leisure-time physical activity</td>
</tr>
<tr>
<td>100 %</td>
<td>91%</td>
<td>Access to Exercise Opportunity % of pop. with access to physical activity locations</td>
</tr>
<tr>
<td>9 %</td>
<td>12%</td>
<td>Children in Poverty Age ≤ 18</td>
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</tbody>
</table>
OVERVIEW: MONTGOMERY HEALTH

LATINO HEALTH

Medical Challenges

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Could not afford a doctor</td>
<td>22.4%</td>
</tr>
<tr>
<td>Had a routine check-up in past year</td>
<td>64.3%</td>
</tr>
<tr>
<td>Never had a routine check-up</td>
<td>9.5%</td>
</tr>
<tr>
<td>Do not have a personal doctor or health care provider</td>
<td>47.1%</td>
</tr>
<tr>
<td>Received late or no pre-natal care</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

Teen Birth Rate Per 1,000 Births

- Latino: 35.7%
- Overall: 12.3%
- White: 2.6%
EPIDEMIC LEVELS OF CHRONIC DISEASE

133 million Americans currently live with chronic disease

- 78 million adults and 12 million children are obese.
- 70 million American adults have high blood pressure.
- 29 million Americans live with diabetes.
- 10 million adults suffer from serious mental illness.

For every dollar spent on healthcare in the U.S., $0.86 is spent on patients with chronic disease.
Humans living in landscapes that lack trees or other natural features undergo patterns of social, psychological and physical breakdown ...

Professor Frances (Ming) Kuo
University of Illinois at Urbana-Champaign
Humans have an innate biological connection to nature.

When that connecting is broken, we are more vulnerable to health risks.
BURNOUT

Caused by chronic stress

Symptoms include:
- Emotional Exhaustion
- Cynicism
- Feeling Ineffective

Among young people 26 and younger rates of depression, psychological distress, and suicidal thoughts are increasing.
PHYSICAL INACTIVITY

- 4 leading risk factor for global mortality
- The average American spends 90% of their day indoors and 10 or more hours viewing screens
The Nature Pyramid

Concept by: Tanya Denckla-Cobb

ACCESS TO EXPERIENCES, NOT ACRES
HEALTH AND ACCESS TO PARKS

Studies have shown that people who have access to parks are more likely to exercise. Exercise reduces anxiety and depression and can help alleviate symptoms of a variety of mental health conditions, including dementia and Alzheimer’s.

Studies show that people EXERCISE MORE if they have access to PARKS and other safe outdoor places. Physical activity reduces and can prevent these serious health problems.

Maintaining a healthy weight saves $1,500 per person in healthcare costs a year. Parks help to reduce the costs of healthcare.
PARK RX PROGRAM
ACCESS TO EXPERIENCES, NOT ACRES

PEOPLE
(CONSUMER)

PARK RX
PROGRAM
(PROMOTER)

PARKS/PUBLIC SPACES
(PROVIDER)

ENERGIZED
PUBLIC SPACES PLAN
(DATA-DRIVEN TOOL)

HEALTH
Our MISSION is to ease the burden of chronic disease, increase health and happiness, and foster environmental stewardship by encouraging doctors to routinely prescribe time in nature to patients.
ACCESS TO EXPERIENCES, NOT ACRES

Park and Leisure Agencies

Health Providers

Community Outreach
OUTDOOR DANGERS

1. Sun Exposure
2. Insect borne diseases
3. Contaminated soils
4. Predators
WHAT IS PARKRX?

An initiative involving a health or social service provider who encourages clients or patients to spend time in nature to improve health and well-being.

ParkRx Program Census 2018
Institute at the Golden Gate
www.ParkRx.org
Being in Nature

Physical Activity

Healthcare

ParkRx Movement

Public Health
WHAT IS A PARK PRESCRIPTION?

PRESCRIPTION CONTENT:

- Visit Location
- Time of Visit
- Visit Frequency
- Visit Duration
- On-Site Activity
FIND PARKS
PARK FILTERS

Narrow down results by choosing activities, amenities, and other park services that interest your patient.

<table>
<thead>
<tr>
<th>Sports Facilities/Activities</th>
<th>General Park Amenities</th>
</tr>
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<tbody>
<tr>
<td>□ Recreation/Fitness Center</td>
<td>□ Playground</td>
</tr>
<tr>
<td>□ Gymnasium</td>
<td>□ Water/Spray Fountain</td>
</tr>
<tr>
<td>□ Baseball/Softball Field</td>
<td>□ Restrooms</td>
</tr>
<tr>
<td>□ Football/Soccer Field</td>
<td>□ Drinking Fountains</td>
</tr>
<tr>
<td>□ Cricket Field</td>
<td>□ Seating</td>
</tr>
<tr>
<td>□ Mixed Use Field</td>
<td>□ Picnic Tables</td>
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<tr>
<td>□ Open Space</td>
<td>□ Grills</td>
</tr>
<tr>
<td>□ Trails</td>
<td>□ Food for Sale</td>
</tr>
<tr>
<td>□ Athletic Track</td>
<td></td>
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<tr>
<td>□ Outdoor Basketball Court</td>
<td>Swimming</td>
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<tr>
<td>□ Outdoor Fitness Stations</td>
<td>□ Indoor Pool</td>
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<tr>
<td>□ Tennis Court</td>
<td>□ Outdoor Pool</td>
</tr>
<tr>
<td>□ Outdoor Practice Wall</td>
<td>Pets</td>
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<tr>
<td>□ Indoor Racket Sports</td>
<td>□ Allowed On-Leash</td>
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<tr>
<td>□ Volleyball</td>
<td>□ Allowed Off-Leash</td>
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<tr>
<td>□ Pickleball</td>
<td>□ Dog Park</td>
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<tr>
<td>□ Four Square Courts</td>
<td>□ Bags Provided</td>
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<tr>
<td>□ Rollerskating</td>
<td></td>
</tr>
<tr>
<td>□ Ice Skating</td>
<td>Additional Features</td>
</tr>
<tr>
<td>□ Inline Hockey</td>
<td>□ Community Gardens</td>
</tr>
<tr>
<td>□ Skateboard Park</td>
<td>□ Ornamental Gardens</td>
</tr>
<tr>
<td>□ Horse Stables</td>
<td>□ Visitor Center</td>
</tr>
<tr>
<td>□ Equestrian Rings</td>
<td>□ Nature Center</td>
</tr>
<tr>
<td></td>
<td>□ Historic Site</td>
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</table>
ONE-PAGE PARK SUMMARIES
YOU ARE PRESCRIBING THE FOLLOWING PARKS:

Marion Park

Generate Prescription Text?

NAME: [FD84VX] Park Rx America - Marion Park

TAKE: Play at|Playground

FREQUENCY: Q M, W, F

DURATION: 30-60 min

Send by Text  Send by Email

Patient Mobile Number

2025501740

Send to Patient
Welcome to your Park Prescription!

You've been prescribed the following parks:

Van Dyck Park

Yes, I went to this park
### Reports

<table>
<thead>
<tr>
<th>Providers Prescribing:</th>
<th>Unique Parks Prescribed:</th>
<th>Prescriptions Made:</th>
<th>Prescriptions Filled:</th>
<th>Response Rate:</th>
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<tr>
<td>59</td>
<td>186</td>
<td>392</td>
<td>82</td>
<td>20.9%</td>
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#### State: All  Date Range: All

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<tr>
<th>STATE</th>
<th>LOCAL</th>
<th>PARK</th>
<th>PROVIDER</th>
<th>PRESCRIPTION</th>
<th>FILLER</th>
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<td>Stanton Park</td>
<td>38.149.166.66</td>
<td>ZIMMWE</td>
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<tr>
<td>DC</td>
<td>Washington</td>
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<td>T0RXJK</td>
<td></td>
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<tr>
<td>DC</td>
<td>Washington</td>
<td>Ludlow-Taylor Elementary School</td>
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<tr>
<td>DC</td>
<td>Washington</td>
<td>Longdon Park</td>
<td>Unity Health Care Upper Cardozo</td>
<td>J1W6LO</td>
<td>Dec 11, 2017 @ 11:12 am</td>
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<tr>
<td>DC</td>
<td>Washington</td>
<td>Longdon Park</td>
<td>Unity Health Care Upper Cardozo</td>
<td>JGHRWJ</td>
<td>Dec 11, 2017 @ 11:12 am</td>
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<tr>
<td>DC</td>
<td>Washington</td>
<td>Langdon Elementary School</td>
<td>Unity Health Care Upper Cardozo</td>
<td>J1X7RH</td>
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<td>Washington</td>
<td>Loomis Park</td>
<td>38.149.166.66</td>
<td>J1V6L7</td>
<td>Dec 19, 2017 @ 10:30 pm</td>
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</table>

Show: ☑ All  ☐ Only Filled
• **ikigai**
• **reason d’etre**
• **life satisfaction**
• **cambios profundos en tu vida**
ENERGIZED PUBLIC SPACES
FUNCTIONAL MASTER PLAN
(EPS PLAN)
ACCESS TO EXPERIENCES, NOT ACRES

PEOPLE
(CONSUMER)

PARK RX
PROGRAM
(PROMOTER)

HEALTH

PARKS/PUBLIC SPACES
(PROVIDER)

ENERGIZED
PUBLIC SPACES PLAN
(DATA-DRIVEN TOOL)
ACCESS TO EXPERIENCES, NOT ACRES

MONTGOMERY COUNTY

Most populous county in MD

2017: 1,058,800

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38%
FROM SUBURBAN TO URBAN
VISION: ENERGIZED PUBLIC SPACES

In the EPS Study Area, everyone can walk to a public space.

Photo: Klyde Warren Park, Dallas Art District. Source: Pinterest.com
Q: How do we measure access to parks and public spaces? 
People covered by walkshed = served
Q: How do we measure access to parks and public spaces?

Pilot Area = no gaps...
ALL PARKS/PUBLIC SPACES ARE NOT EQUAL.

All park experiences (supply) are not created equal for everyone (demand).
ACCESS TO LAND VS. AMENITIES

Acorn Urban Park
- Size: 0.15 acres
- Amenities: 13

Woodside Urban Park
- Size: 2.45 acres
- Amenities: 50

Conservation Park
- Size: 214 acres
- Amenities: 1
CONTEMPLATIVE RECREATION – MENTAL HEALTH

What to do - Experiences:
- Enjoy Nature
- Relax, Meditate, Reflect
- Escape Chaos

Where - Facilities:
- Natural Areas
- Historic Sites
- Benches
- Trees for Shade
- Community Open Space
- Gardens
- Small Green Spaces
- Trails
ACTIVE RECREATION - PHYSICAL HEALTH

What to do - Experiences:
- Kick a Ball
- Run/Walk
- Play Games
- Exercise

Where - Facilities:
- Field: Open space/Grass
- Trails
- Hard Courts & Surfaces
- Nature-inspired Interactive Elements (climbing)
- Playgrounds
SOCIAL GATHERING – SOCIAL HEALTH

What to Do - Experiences:
- Community Festivals
- Farmer’s Market
- Lunch Places
- Concert, Parades
- Outdoor Movies
- Historic Sites

Where - Facilities:
- Plazas with Seating
- Stages/Amphitheaters
- Cluster of Picnic Tables
- Community Open Spaces
- Dog Parks
EPS PLAN
We measure access to experiences, not acres.
INTEGRATED PUBLIC SPACES SYSTEM

independent of ownership

- MONTGOMERY PARKS
- MONTGOMERY COUNTY
- NEIGHBORING COUNTY/MUNICIPAL PARKS
- STATE PARKS
- PRIVATELY-OWNED PUBLIC SPACES (POPS)
- SCHOOLS
- NATIONAL PARKS

ACCESS TO EXPERIENCES, NOT ACRES
EPS STUDY AREA
PRELIMINARY RESULTS
EPS PLAN
TOP 12 DEFICIT CLUSTERS

Top 12 Deficit Clusters
EPS Study Area
Montgomery County

* Graphics represent preliminary results
EPS PLAN

COUNTY

Montgomery County
EPS PLAN
STUDY AREA

- EPS Study Area
- Montgomery County
EPS PLAN
DEFICITS

Deficits/Shortage of Accessible Experiences
EPS Study Area
Montgomery County

* Graphics represent preliminary results
EPS PLAN
40 CLUSTERS

Pppt layer that showcase the top 12

- Development Clusters (1 square-mile)
- Deficits/Shortage of Accessible Experiences
- EPS Study Area
- Montgomery County

* Graphics represent preliminary results
EPS PLAN
TOP 12 CLUSTERS

* Graphics represent preliminary results
THE GRID

- Regular grid system
- Each grid has a supply and demand associated to it
- Grids with these attributes can be viewed and analyzed in many ways
EPS PLAN
TOP 12
DEFICIT
CLUSTERS

Top 12 Deficit Clusters
EPS Study Area
Montgomery County

* Graphics represent preliminary results
DEMAND RESIDENTIAL

< 12 (Single-Family)
< 50 (Single-Family Attached)
< 200 (Garden)
< 1,384 (High Rise)

Development Cluster (1 square-mile)
Montgomery County

* Graphics represent preliminary results
DEMAND RESID.+ COMM.

Less People

More People

Development Cluster (1 square-mile)

Montgomery County

* Graphics represent preliminary results
SUPPLY

ACTIVE

- Less Supply
- More Supply
- Development Cluster (1 square-mile)
- Montgomery County

* Graphics represent preliminary results

ACCESS TO EXPERIENCES, NOT ACRES
SUPPLY

CONTEMPLATIVE

Less Supply

More Supply

Development Cluster (1 square-mile)

Montgomery County

* Graphics represent preliminary results
SUPPLY

SOCIAL GATHERING

* Graphics represent preliminary results

ACCESS TO EXPERIENCES, NOT ACRES
SUPPLY TOTAL

Less Supply

More Supply

Development Cluster (1 square-mile)

Montgomery County

* Graphics represent preliminary results

Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
OVERLAY SUPPLY + DEMAND

Development Cluster (1 square-mile)

Montgomery County

* Graphics represent preliminary results
DEFICITS/
< LEVEL OF SERVICE

Deficits
Development Cluster (1 square-mile)

* Graphics represent preliminary results

ACCESS TO EXPERIENCES, NOT ACRES
DEFICITS

40 deficit squares

* Graphics represent preliminary results

Deficits (1 square-acre)

Development Cluster (1 square-mile)
152 deficit squares

40 deficit squares

Deficits (1 square-acre)

Development Cluster (1 square-mile)

* Graphics represent preliminary results
DEFICITS HAVE DIFFERENT WEIGHT

GERMANTOWN

DEFCIT = 5,732

152 deficit squares
< demand
< supply
↓ connection

BETHESDA

DEFCIT = 7,203

40 deficit squares
> demand
< supply
↑ connection

Lesser Deficit
Medium Deficit
Greater Deficit
NOT ALL DEFICITS WILL BE TREATED THE SAME

The EPS Plan establishes five major strategies to improve the mapped deficits.
EPS STRATEGIES

$ ACTIVATE

CONNECT

REPURPOSE/REDEVELOP

DEVELOP

$ $ $ CREATE
CREATE & DEVELOP – PARKS DEPT.

New Park
CREATE WITH PARTNERS

Building Roof

POPS (privately-owned public spaces)

Parking Garage Roof
REPURPOSE

BEFORE: Underutilized courtyard

AFTER: Popular dog park
CONNECT

Improvements to cross busy avenue & connect to larger park

- Public Open Space
- Public/Private Open Space
- Proposed Pedestrian Node
- Existing Crosswalk
- Proposed Crosswalk/Pedestrian Improvement
- Proposed Park Pedestrian Connection
ACTIVATE

White Flint Placemaking Festival
ACTIVATE

Climbing Trees  Pump Track  Yappy Hour: Partners
THANK YOU
METHODOLOGY: HOW WE DID IT
THE GRID

- Divide area into 1-acre grid
- 300k+ acre grids
- Regular grid – getting supply and demand in each grid
- Compare equally
- More precise than census tract
Demand:
- Population of Residents + Workers
- Sample demand for one square
DEMAND: CONSOLIDATE LARGE SITES

6 PARCELS
Only 1 parcel contains total info

1 PARCEL
Consolidation of parcels

DEMAND BY GRID
Distribution of demand on buildings only

ACCESS TO EXPERIENCES, NOT ACRES
SUPPLY - GRID

- 1-acre focus area
- Supply of Amenities within the walkshed
- Woods
- 10-min walkshed
- Barrier

ACCESS TO EXPERIENCES, NOT ACRES
COLLECTING AND SCORING

90+ categories
500+ locations
14k+ amenities

ACCESS TO EXPERIENCES, NOT ACRES
## Trails Scoring

<table>
<thead>
<tr>
<th></th>
<th>Active</th>
<th>Contemplative</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail</td>
<td>6/10/14</td>
<td>6/10/14</td>
<td>2/2.5/3</td>
</tr>
</tbody>
</table>

- **Less Access to Trails**
- **More Access to Trails**
- **Trails**

*Access to Experiences, Not Acres*
WOODS
SCORING

Less Access to Woods

More Access to Woods

Size (amount of woods)

Scoring Points

ACCESS TO EXPERIENCES, NOT ACRES
WALKABLE NETWORK

Create Walk Links:
- Neighborhood roads
- Trail systems
- Park, school, and private retail walkways
- Any road with a sidewalk
WALKABLE NETWORK

Montgomery Park-owned pathway/trail

Private-owned public pathway/trail

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Pathways
THANK YOU

GREATER NEED
Lower Level of Service
RECAP

How Park Rx America promotes the Health Benefits of Parks and Public Spaces

How the EPS Plan evaluates access to public spaces

Prioritize where a Park system should allocate its limited resources

Source: Carl Morgan, M-NCPPC
Questions?

www.montgomeryparks.org

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