

# Prescription Parks & Trails (Park Rx)

**John Richardson**

Urban and Community Forestry and Forest Health Program Manager

Arizona Department of Forestry and Fire Management





# Arizona Department of Forestry and Fire Management



- Our Vision: An Arizona with safe people and communities, and a healthy, vibrant environment where natural resources are managed for multiple benefits.
- Our Mission: To manage and reduce fire risk to protect Arizona's people, communities, and wildland areas to champion the health of Arizona's natural resources. The Department of Forestry and Fire Management provides services through strategic implementation of cooperative natural resources and fire assistance programs, development and support of statewide fire policies, and coordination of resources across all-lands and jurisdictions.

# BEYOND Foundation Mission & Partners

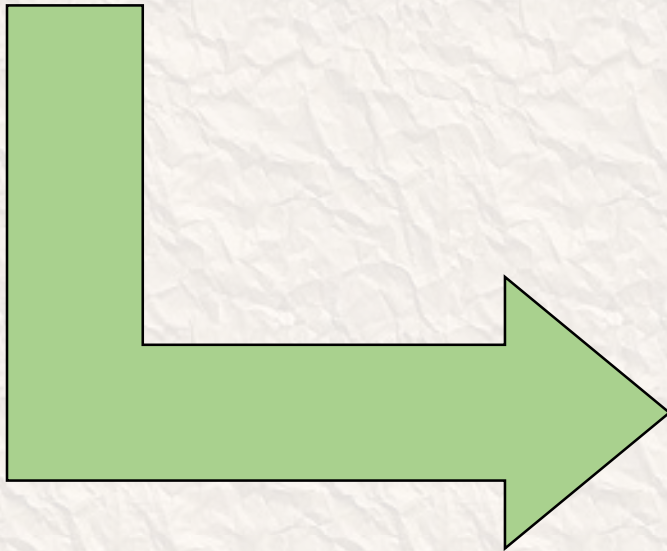
- Tucson based 501c3 committed to public health.
- Mission: to promote the use of good science and rational analysis to improve individual and community health.
- A diverse coalition of Southern Arizonans including:
  - Hospitals & Health Organizations
  - Environmental advocacy groups
  - Community Centers
  - Outdoor Recreation Groups
  - Government Agencies
  - Others...





# BEYOND Foundation Health Formula

- The Rx health formula emphasizes four pillars that support optimum physical and mental health:



# National Park Service - Park Rx

- Became involved in 2013 when Institute at the Golden Gate and NRPA, convened a group of park agencies, healthcare providers, and community organizations to discuss the emerging trend of prescribing nature to improve mental and physical health.





# Trees, Nature and Health

- The health benefits of nature impact individuals across every stage of life and enhances their physical, mental, social and spiritual health and well-being.



# Trees, Nature and Health

“Our brains, aren’t tireless three-pound machines; they’re easily fatigued. When we slow down, stop the busywork, and take in beautiful natural surroundings, not only do we feel restored, but our mental performance improves too.”

- David Strayer a Cognitive Psychologist at the University of Utah



# What is the relationship between nature and health?

“Contact with nature may provide an effective population-wide strategy in prevention of mental ill health, with potential application for sub-populations, communities and individuals at higher risk of ill health.”

- Cecily Maller, Mardie Townsend, Anita Pryor, Peter Brown, Lawrence St Leger; Healthy nature healthy people: ‘contact with nature’ as an upstream health promotion intervention for populations, Health Promotion International, Volume 21, Issue 1, 1 March 2006, Pages 45–54, <https://doi.org/10.1093/heapro/dai032>





# What is the relationship between trees and health?

- Trees clean the air – absorb pollutant gases and filter particulates
- Trees cool urban areas
- Trees provide oxygen
- Trees help prevent water pollution
- Trees provide food
- Trees help people heal faster
- Trees reduce violence



# What is the relationship between nature and health?

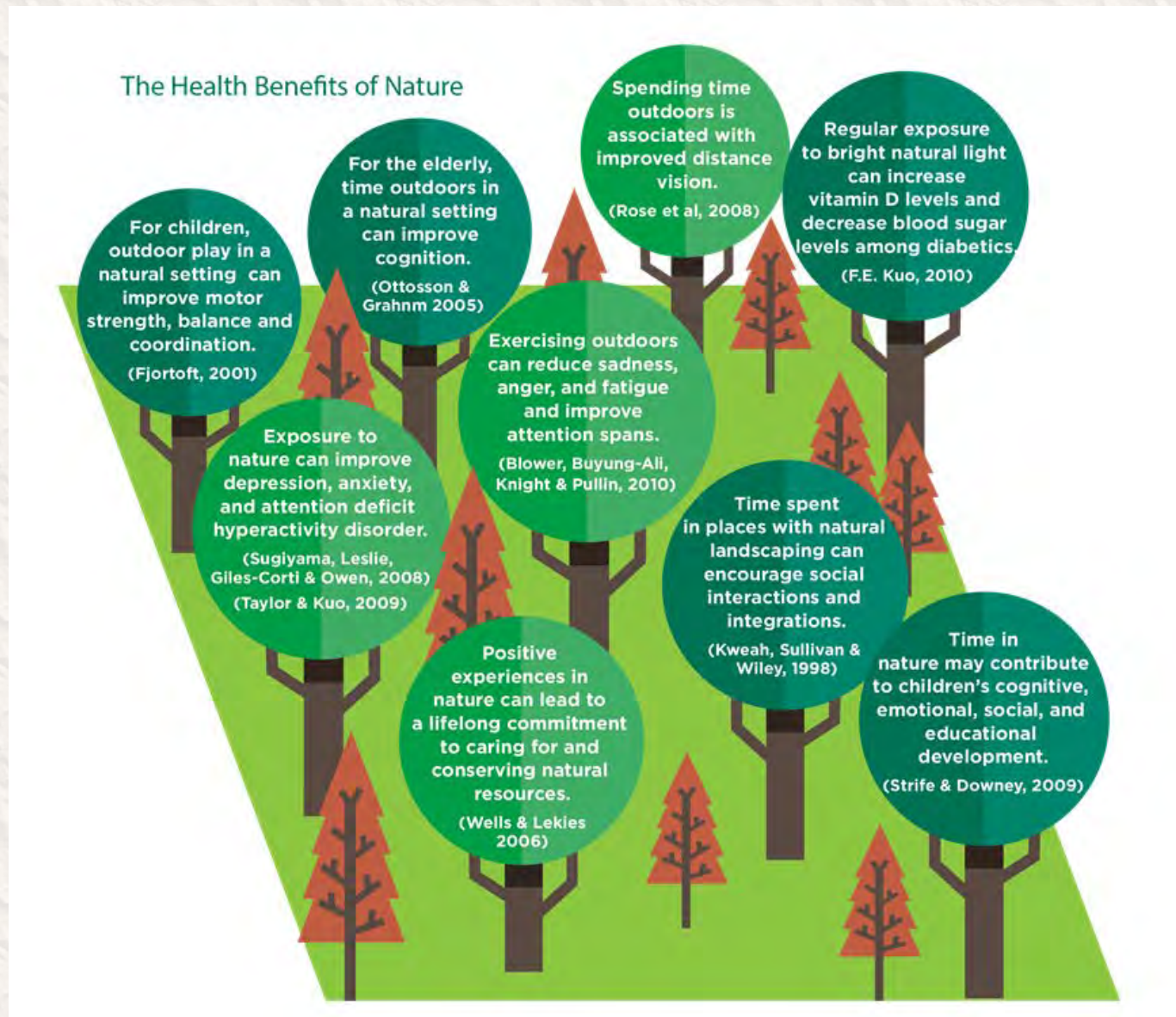
- “Access to nature has been correlated with a striking number of mental and physical health benefits in humans.”
- “Being in nature reduces the biological markers of stress, relieves symptoms of depression, and increases white blood cell counts.”
- “Walking in a forest reduces heart rate and cortisol levels.”

	KEY FINDINGS	
•	The spread of the emerald ash borer, which poses no direct threat to humans but has killed more than 100 million trees in the United States, was associated with an additional 15,000 human deaths from cardiovascular disease and an additional 6,000 deaths from lower respiratory disease.	
•	Human mortality increased the longer emerald ash borer was present in a county, consistent with the progression of the insect infestation. Infected trees typically die within 2 to 7 years.	

<https://www.fs.fed.us/pnw/science/scifi158.pdf>




# Health Benefits of Nature



# What is Park Rx?

- Park Rx gives healthcare providers a new set of tools to inspire patients to take proactive steps to improve their health and well-being **with prescriptions** for patients to participate in **outdoor activities**



The form features a header with the 'Park Rx' logo, which includes a green star icon, set against a background of green hills and a blue sky. Below the header, the form is divided into several sections for patient information and provider details.

Who: \_\_\_\_\_ Date: \_\_\_\_\_

**R<sub>x</sub>:**

Sig: \_\_\_\_\_

Dispense: \_\_\_\_\_

Refills: \_\_\_\_\_

Signature: \_\_\_\_\_



# How Does Park Rx Work?

- Healthcare professionals work with their patients to develop an appropriate routine using nearby neighborhood parks, where they can meet up with ParkRx Guides on a weekly basis to do fun physical activities that meet their individualized health goals.



**Park Rx**

Who: \_\_\_\_\_ Date: \_\_\_\_\_

**Rx:**

Sig: \_\_\_\_\_

Dispense: \_\_\_\_\_

Refills: \_\_\_\_\_

Signature: \_\_\_\_\_



# How Does Park Rx Work?

- Will include some type of referral or “push” from a healthcare or social service provider and “pull” from a park system that connects participating individuals with local outdoor activities.
- ParkRx Guides also organize additional outdoor ‘field trip’ excursions to various public lands each month to add additional natural environment experiences for participants.



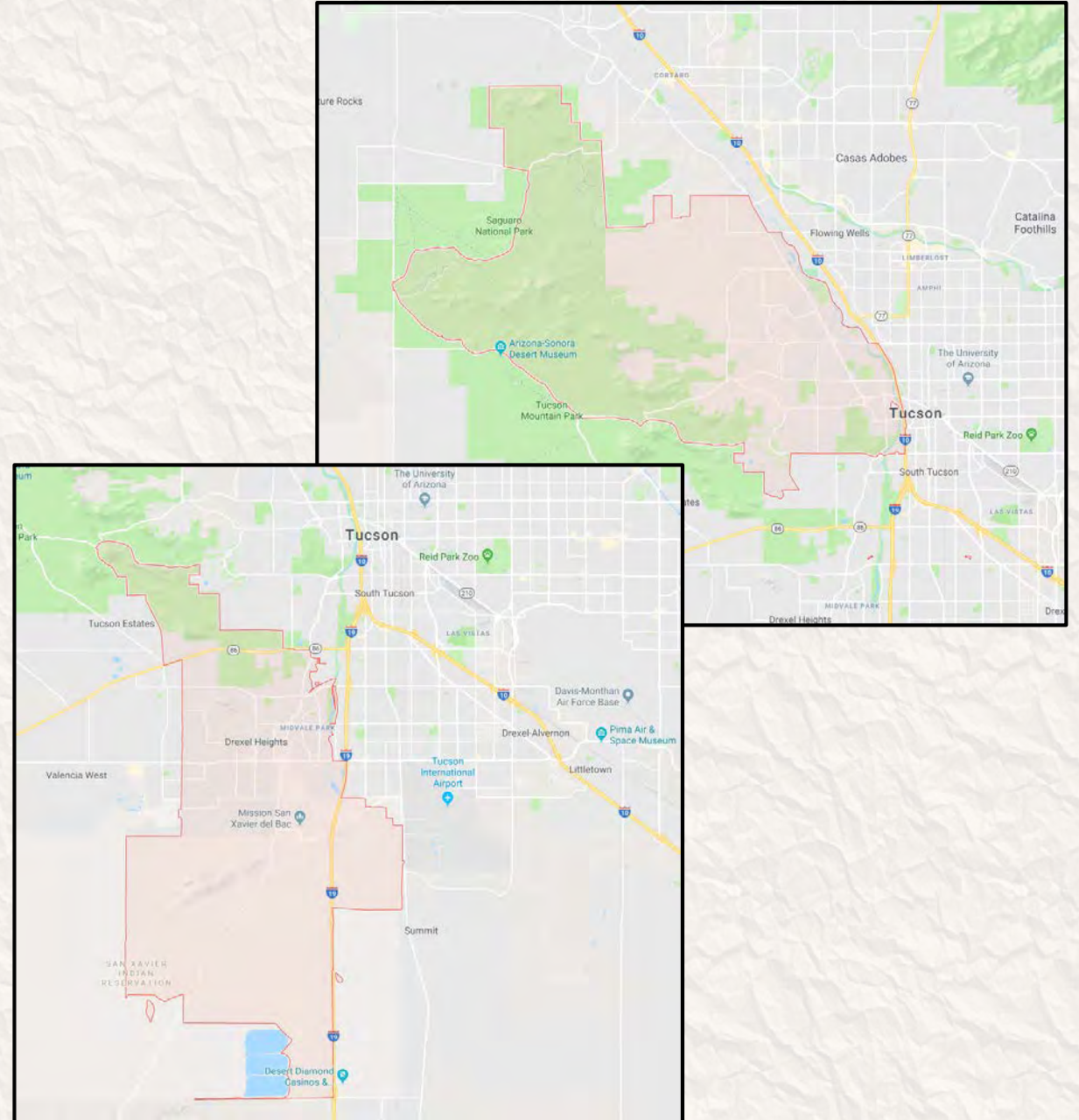
# Prescription Parks and Trails (Park Rx) - Tucson

- Prescription Parks and Trails (Park Rx) is a project aimed at improving the physical and mental health of individuals and communities in southern Arizona.
- In collaboration with healthcare providers, public land agencies, and community partners, Park Rx is assisting and encouraging people to utilize parks, trails, and open spaces.
- Goal: Make Park Rx available for prescription by any Tucson doctor.

# Park Rx Target areas

- Effort is focused around zip codes 85745 and 85746 on the west side of Tucson where there is:

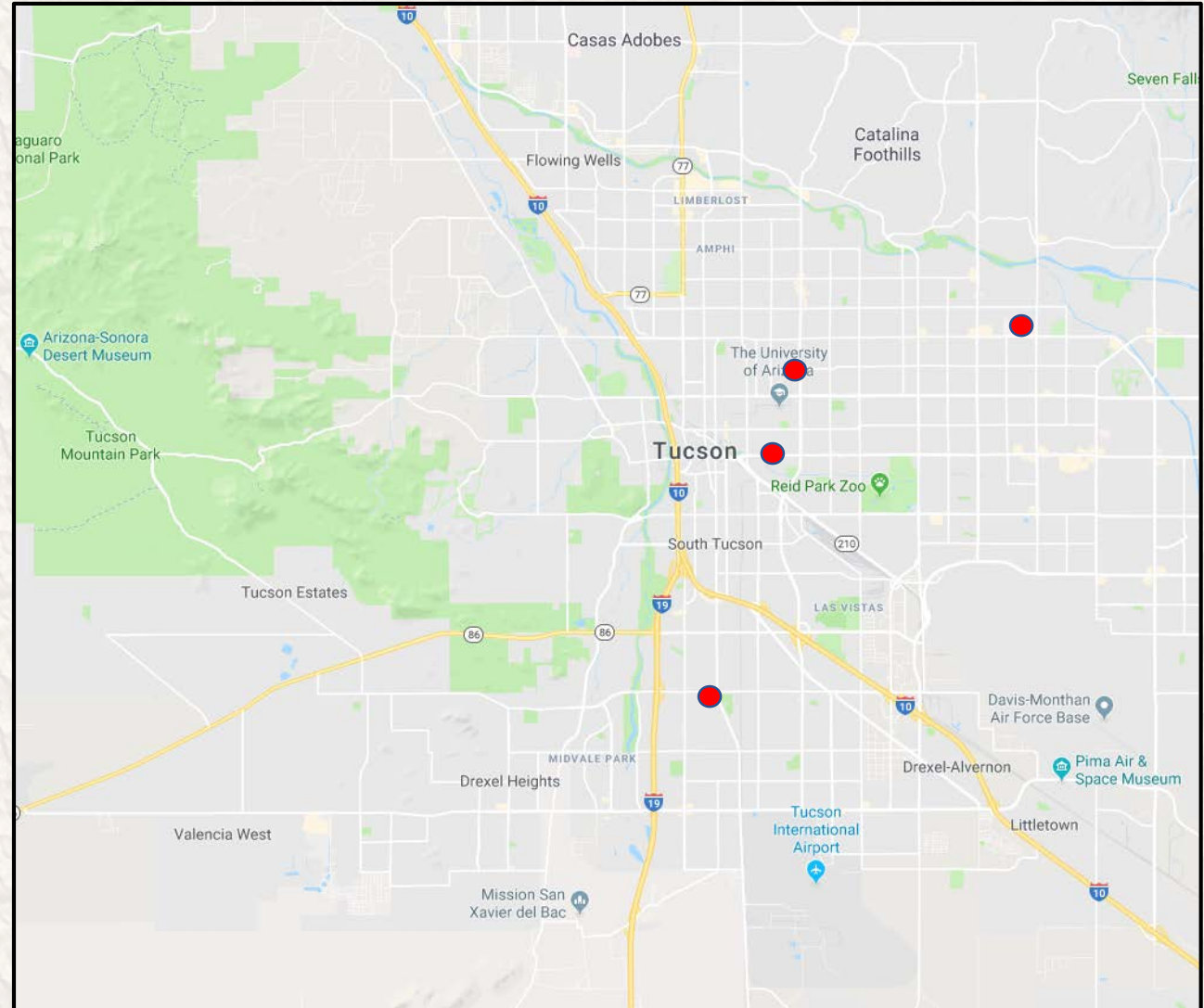
- ✓ High population
- ✓ Approximately 45% of the population in each zip code being low-income





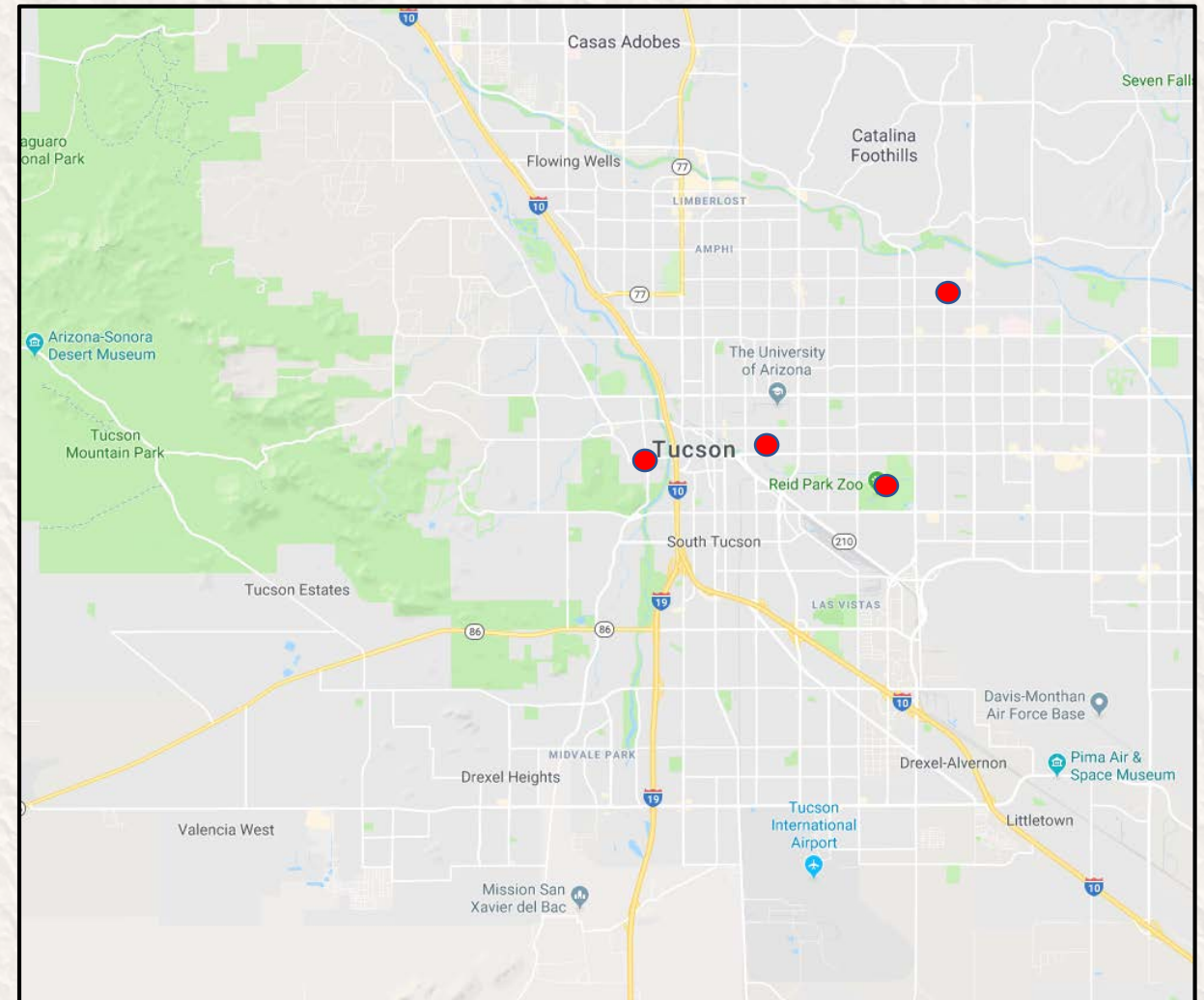
# Healthcare Partners

- El Rio Community Health Center
- Tucson Medical Center
- Banner University Medical Center's Pediatrics Department
- Clinica Amistad at El Pueblo Neighborhood Center.



# Weekly Park Rx Neighborhood Walks

- El Rio Community Health Center
  - Wednesday at 5pm
- Mercado San Augustin
  - Thursday at 5pm
- Coming Soon
  - Reid Park – Tuesdays
  - Tucson Medical Center @ McCormick Park





# Park Rx Need and Justification

- Pima County's 2015 Community Health Needs Assessment identified 4 top health issues to prioritize interventions for the county:

1. Anxiety & Depression Spectrum Disorders

2. Substance Abuse & Dependency

1. Arizona Department of Health Services - Opioid Epidemic

3. Injuries and Accidents

4. Diabetes



# Tucson Park Rx Past Events

- ParkRx Soft Open November 4<sup>th</sup>
- Together We Move at Mercado San Agustin
- Witness the Fitness at El Pueblo Neighborhood Center
- Discover Petroglyphs in the Tortolitas
- Run with the Saguaros: 4 or 1-mile Social Run
- El Rio Health Clinic Park Rx Training
- Saguaro National Park: iHike for Health Challenge



# ParkRx Soft Open November 4th

- Park Rx had a soft open event that allowed all the partners to come together to showcase Park Rx to the community.
- This event featured games, music, a mobile medic clinic for taking vitals, health education info, and a Park Rx walk.
- This event helped the partners solidify their strategy to reach the local community.





# Together We Move at Mercado San Agustin

- This was the official launch event of Park Rx on January 13, 2018.
- Included Jazzercise, Zumba, Hula Fitness, dancing, drumming, a walk to the mission garden, and Dequenesh's Community & Wellness Mobile Unit to take vitals





# Witness the Fitness at El Pueblo Neighborhood Center

- This event involved classes lead by El Rio instructors in both Zumba and Tai Chi, as well as a jumping castle and health educational information.





# Discover Petroglyphs in the Tortolitas

- This 6 mile hike had an enthusiastic group who enjoyed communing together and gaining the health benefits of being outside.





# Run with the Saguaros: 4 or 1-mile Social Run

- Saguaro National Park West
  - Four-mile and one-mile social run
  - 400 registered for the event
  - Registrations up from last year!



# El Rio Health Clinic Park Rx Training

- There have been two training meetings with El Rio providers and behavioral health coaches.
- Efforts are focusing on patients with anxiety, depression and patients enrolled in the weight management for optimal health program.





# Saguaro National Park: iHike for Health Challenge

- Saguaro National Park developed an iHike for Health Challenge where participants receive a collectors token for completing 3 miles of hiking.
- This is another great option for providers to prescribe to patients who prefer to do self-guided activities.

National Park Service  
U.S. Department of the Interior  
Saguaro National Park



## Hike among the Saguaros



Explore the many trails of Saguaro National Park

Hiking is a great way to exercise while exploring the natural resources of Saguaro National Park. The iHike for Health program is a hiking challenge you can enjoy on your own or with your friends and family. Follow the instructions below to earn the reward of an iHike for health collectors token while hiking some of the most beautiful trails in southeast Arizona.

### Program Rules

1. In order to qualify for the reward you must hike a minimum of 3 mi / 5 km.
2. Each individual seeking the reward must have a photograph on the trail(s) they have hiked. Present pictures to a ranger at the Visitor Center for verification.
3. Use the hiking chart on the back to record your accomplishments.
4. Please, only one (1) reward per person.
5. Have fun!

### Suggested Hiking Routes: (Distances are roundtrip)

#### Saguaro National Park (West)

- Desert Discovery 0.5 mi / 0.8 km
- Ringtail / Mule Deer / Cam-Boh 1.0 mi / 1.6 km
- King Canyon / Sendero Esperanza / Gould Mine Trail 2.4 mi / 3.9 km
- Hugh Norris / Sendero Esperanza / Dobe Wash 5.1 mi / 8.2 km

#### Saguaro National Park (East)

- Desert Ecology Trail 0.25 mi / 0.4 km
- Freeman Homestead Trail 1 mi / 1.6 km
- Mica View Picnic Area Loop 2 mi / 3.2 km
- Douglas Spring / Garwood / Carrillo / Douglas Spring 5.8 mi / 9.3 km

### Hiking Safety Tips

- Do not hike beyond your own limitations.
- Be sure to drink enough water in this arid environment (1 liter per hour). Remember: "Half way down, turn around." Check your water supply and head back to the trailhead when your water is 1/2 gone.
- Bring trail snacks to replace your electrolytes.
- Protect yourself from the sun; wear a hat and use sunscreen even in fall and winter.

### Hiking Log

Record your hikes using this log. Present your pictures with this log to a ranger at the visitor center for verification and to claim your award.



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### What's Next?

Challenge yourself to keep hiking for enjoyment and your health. Keep in mind an average person burns 100 calories for every mile (~2,000 steps). Also an average person burns around 100 calories (1/2 energy bar) for every mile walked.



# Recent Park Rx Milestones

- Added a new healthcare provider partnership – Banner University Medical Center, Pediatric Department
  - Conducted Park Rx training with Residents and one decided to do their research project on the Park Rx program.
- Participated in National Parks Rx Day and hosted event at El Pueblo Neighborhood Center
  - Congressman Grijalva, ranking member of the House National Resources Committee was in attendance at the event and helped participants plant two trees in the newly cleaned up park.



# Recent Park Rx Milestones

- Partnered with Pima County's library after-school program and YMCA after school program to engage youth groups in Park Rx activities.
- Added Full Moon hikes at Sabino Canyon and early morning hike excursions for the summer to Sabino, Madera, and Mt. Lemon.
- Partnered with Reid Park Zoo that involves FREE admission if the participants bring a prescription from their Doctor.
  - This program has seen great success in recruiting new health care practitioners through this public to doctor outreach.

# Recent Park Rx Milestones

- To date, Park Rx has organized 65 “Neighborhood Weekly Walks” with 899 participants. Many of whom are on-going weekly participants with special event participation included as well.
- Trained 62 health practitioners (from Banner and El Rio) on Park Rx
- Conducted 8 “field-trip-type excursions” to National Park/Forest and Pima County public lands with a total of 66 participants.



# New Hiking Opportunities



PRESENTS

## Summer Full Moon Hikes

**June 28th (Thursday)**  
**July 27th (Friday)**  
**August 26th (Sunday)**

**What:** Summer full moon hikes are a great way to enjoy being outside and beat the heat. You are invited to join in on the fun and hike in Sabino Canyon and have a great view of the full moon.

**When:** 7:30 PM—10:00 PM  
(With our schedule it is very important that you arrive on time.)

**Where:** Meet in front of Beyond Bread at Speedway and Wilmot Address: 6260 E Speedway Blvd, Tucson, AZ 85712

**Extra details:** This event is **100% FREE!** We provide transportation and snacks. The walk is 1.5 miles long round trip on a paved surface that supports all types of wheelchairs.

Transportation space is limited. Registration cut-off is 3 days prior to hike.  
RSVP with Diego Martinez at 520-304-4611



The State of Arizona Urban and Community Forestry Program is made possible with assistance from the USDA Forest Service Urban and Community Forestry Program. These institutions are equal opportunity providers.



Presents

## Summer Morning Hikes

7:00 AM—12:00 PM (including drive time)

RSVP no later than 2 days prior to hike with Diego (520) 304-4611

FULL hike details on [Beyond-Tucson.org](http://Beyond-Tucson.org) and Beyond-Tucson ([Facebook](#))



Saturday, June 23rd  
**Sabino Canyon**



Saturday, July 21st  
**Madera Canyon**



Saturday, August 18th  
**Mt Lemmon**

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# National Park Rx Day — last Sunday of National Park Week





# Youth In Nature Event



Youth groups at the El Pueblo site in partnership with Pima County's library after-school program and YMCA after school program. These special Park Rx programs occur once a month.



# How Do I Start My Own Park Rx Program?

- Contact me!
  - We have local resources with lots of knowledge (lessons learned, etc.)
  - It's being done in Tucson!
- Park Rx Resources: <http://parkrx.org/resources-0>
  - Step-by-step guidance
  - Success stories
  - Healthcare Provider Perspectives
  - Webinars: how to partner, implement and evaluate
- DFFM Community Challenge Grants (CCG's) and TREE Grants



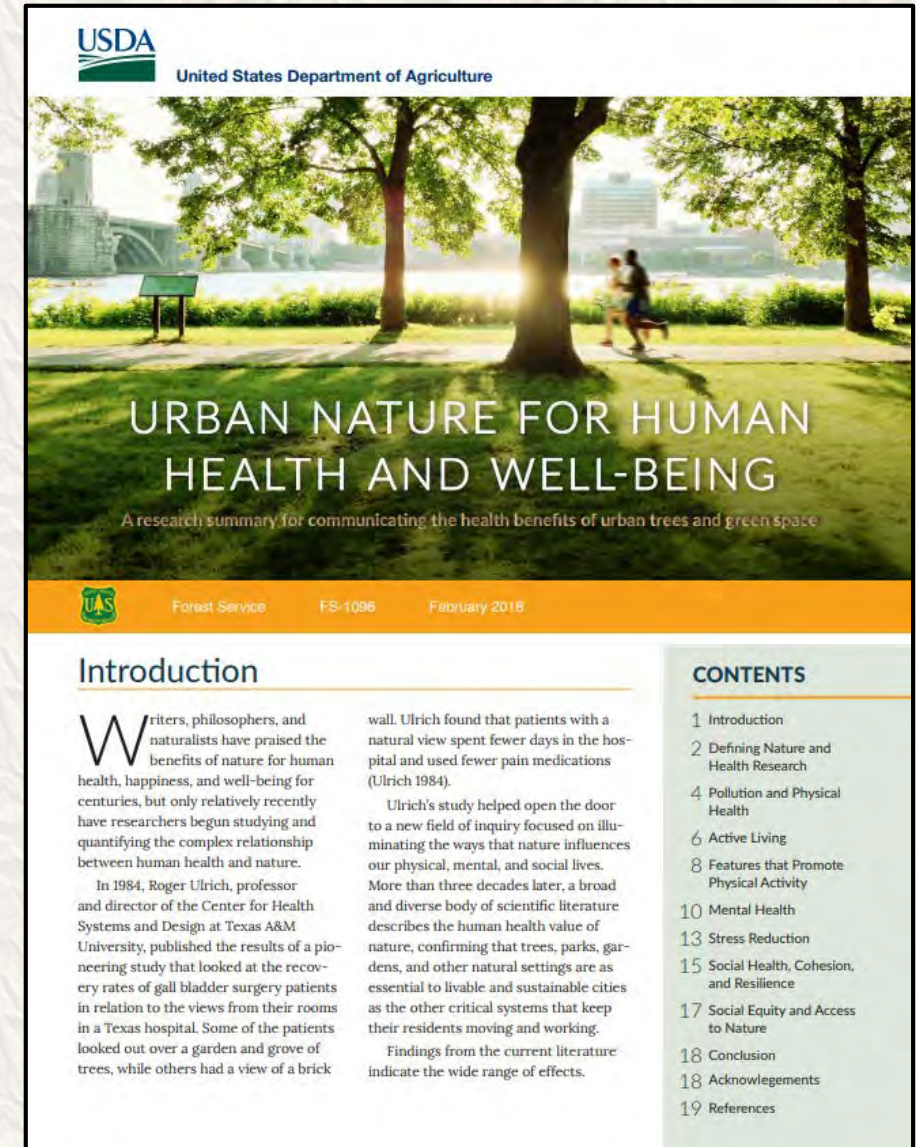
# Must Read Publications

- Outside our Doors
- This report presents a panoramic view of how our cities and towns benefit from nature—on the streets, next to schools and hospitals, outside our windows; everywhere people are, we can benefit from nature.



# Must Read Publications

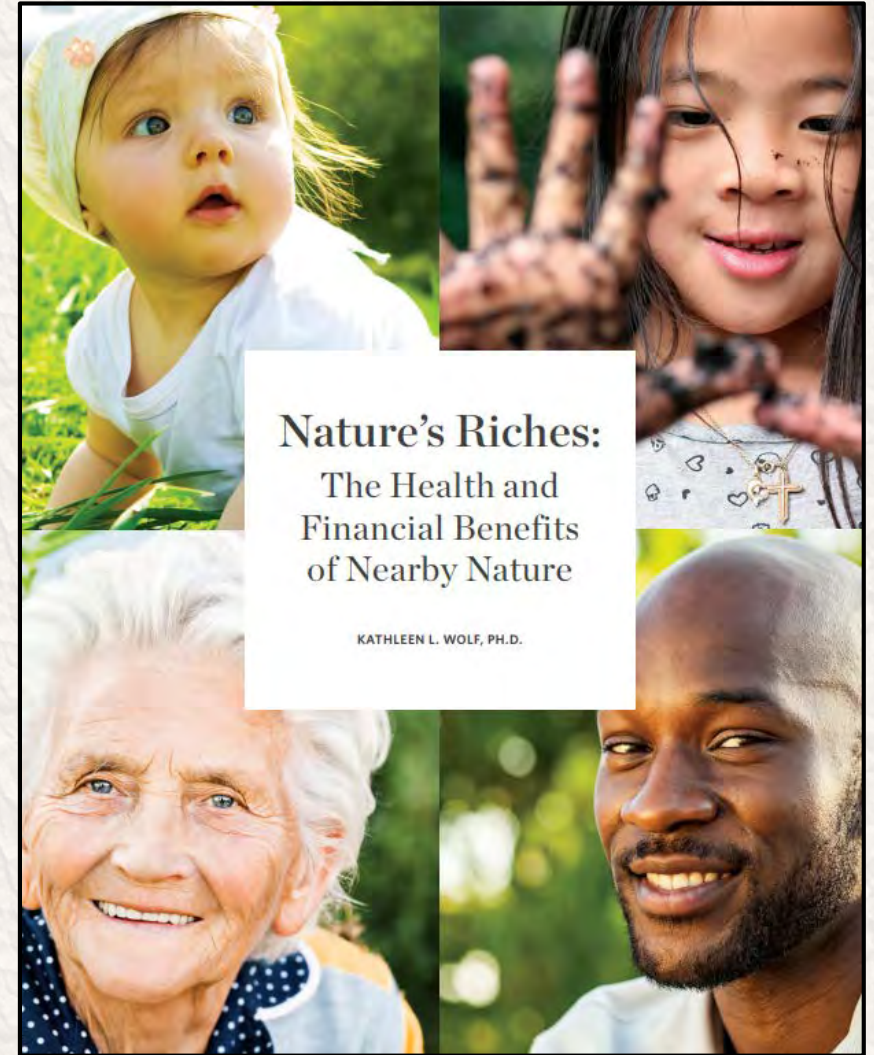
- Urban Nature for Human Health and Well-Being
- A research summary for communicating the health benefits of urban trees and green space.





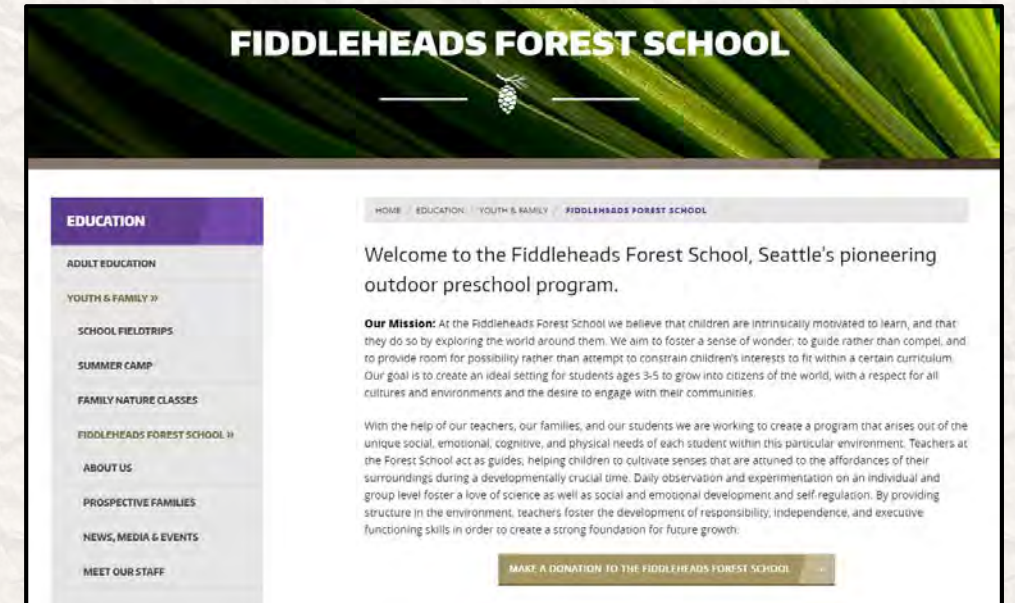
# Must Read Publications

- Nature's Riches: The Health and Financial Benefits of Nearby Nature
- Nearly 40 years of scientific research demonstrates that the experience of nature in cities contributes to our health and wellness.



# Check It Out

- Fiddleheads Forest School
- Outdoor preschool program rooted in a strong foundation of self-regulation skills.





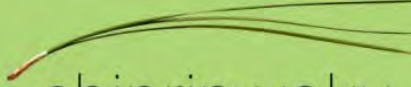
# Check It Out

- Hike it Baby
- Hike it Baby is dedicated to building communities that support getting families outside with children from birth to school age.






# Check It Out

- Shinrin yoku (forest bathing)
- Go to a Forest. Walk slowly. Breathe. Open all your senses. This is the healing way of Shinrin-yoku Forest Therapy, the medicine of simply being in the forest.

shinrin yokuHome**Shinrin Yoku**ProgramsBlogBecome a GuideContactFree Starter Kit

Go to a Forest. Walk slowly. Breathe. Open all your senses.  
This is the healing way of Shinrin-yoku Forest Therapy,  
the medicine of simply being in the forest.




Shinrin-yoku is a term that means "taking in the forest atmosphere" or "forest bathing." It was developed in Japan during the 1980s and has become a cornerstone of preventive health care and healing in Japanese medicine. Researchers primarily in Japan and South Korea have established a robust body of scientific literature on the health benefits of spending time under the canopy of a living forest. Now their research is helping to establish shinrin-yoku and forest therapy throughout the world.

The idea is simple: if a person simply visits a natural area and walks in a relaxed way there are calming, rejuvenating and restorative benefits to be achieved.

We have always known this intuitively. But in the past several decades there have been many scientific studies that are demonstrating the mechanisms behind the healing effects of simply being in wild and natural areas. (some of this research is available [here](#)). For example, many trees give off organic compounds that support our "NK" (natural killer) cells that are part of our immune system's way of fighting cancer.

The scientifically-proven benefits of Shinrin-yoku include:

- Boosted immune system functioning, with an increase in the count of the body's Natural Killer (NK) cells.
- Reduced blood pressure
- Reduced stress





# Try It

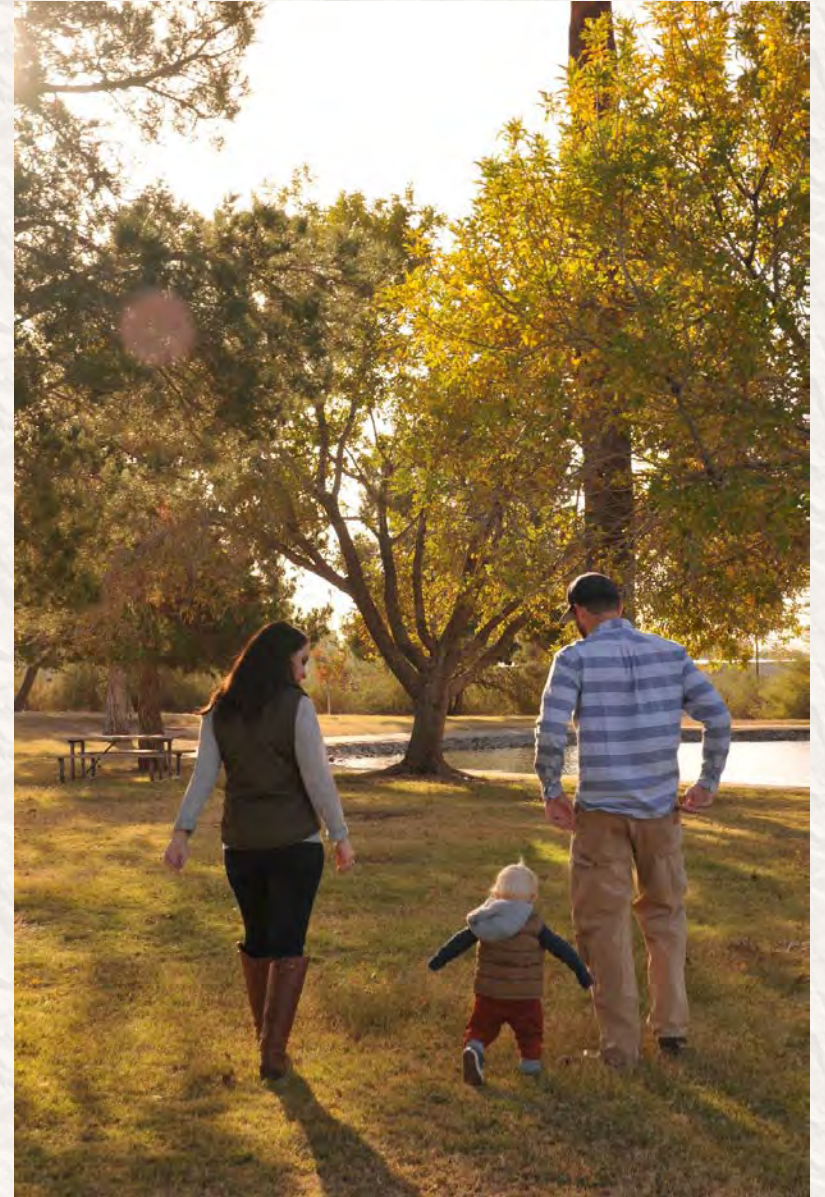
- Walking Meetings
- How to Do Walking Meetings Right – Harvard Business Review





# Conclusion

- There are many benefits of trees and spending time in nature.
- Health is and will become an increasing issue that can help be addressed by trees and nature.
- Park Rx is one tool, already established, that can be easily deployed.
- Expansion of program throughout Arizona!





# Acknowledgments and Thank You

[www.beyond-tucson.org](http://www.beyond-tucson.org)

Michelle Crow – BEYOND Foundation

mcrow696@gmail.com



To sign up to participate in the Tucson program:

Diego Martinez Barrera

[diego@beyond-tucson.org](mailto:diego@beyond-tucson.org)

(520) 304-4611

[www.parkrx.org](http://www.parkrx.org)

Laura Bolyard – NPS

Laura\_bolyard@nps.gov



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John Richardson

Arizona Department of Forestry and Fire Management

[JRichardson@dffm.az.gov](mailto:JRichardson@dffm.az.gov)

602-771-1420

