

# Park Rx America: A prescription for human health and environmental connectedness

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As a pediatrician in Washington DC, I have provided primary care to thousands of children over the last 18 years and witnessed close-up the toll that chronic disease takes on so many of them. According to the US Centers for Disease Control and Prevention, there are currently 70,000,000 Americans diagnosed with hypertension, 29,000,000 with diabetes, 10,000,000 with serious mental illness, and 90,000,000 with obesity. Twenty years ago, I would never have imagined such an immense burden of chronic disease in children and their adult counterparts. It pains me to see so many people suffering from obesity, depression, anxiety, high blood pressure, prediabetes, and high-cholesterol. This problem of chronic disease has reached epidemic proportions during the same period of time that our exposure to natural areas has plummeted.

After hearing Rich Louv speak at an American Academy of Pediatrics annual Conference and Exhibition in 2010, and meeting countless researchers, advocates, and park professionals from around the world, I became aware of the preponderance of scientific studies (over 500) that show a convincing correlation

between time spent in Nature and improved physical and mental health outcomes. Spending time in nature is linked with decreased anxiety, rumination, and negative affect. Forest environments are shown to decrease cortisol levels, blood pressure, and sympathetic nervous system activity. Access to parks reduces the risk of obesity, and living in a neighborhood with more opportunities for physical activity is associated with lower risks of Type 2 diabetes. Some of the earliest studies from Japan showed that forest bathing (shinrin yoku) increases Natural killer cells, which are linked to reducing cancer risk. Living near green spaces reduces overall mortality, even when adjusted for sociodemographic factors<sup>1)</sup>.

I also became aware of US National Park Service's Healthy Parks Healthy People's (HPHP) concept of the park prescription. HPHP originated in Australia, and quickly spread to many countries around the world. Not being schooled in the ways of the parks management world, I was surprised and interested to learn that the world of parks and related fields (landscape architecture, city planners, environmental activists/stewards, etc.), not



Figure 1 poster of Park Rx America

medicine/public health, was promoting the science linking Nature and human health. Upon further inquiry, I learned that most doctors, like myself, were unaware of the extensive research linking ‘spending time in Nature’ to improved health outcomes. Nearly ten years ago, I took it upon myself to educate my colleagues in the health professional work about this under-recognized science. I have also spent the last decade building relationships with both the parks and health professional worlds, in order to promote two agendas: human health and environmental stewardship. Connecting my patients to Nature has a two-pronged effect: improved human health outcomes and a renewed connection to Nature. The former is of interest to doctors, and the latter to parks world. Parks and protected areas need to be visited by conscientious visitors, who form meaningful relationships with nature. This mature relationship (between humans and natural areas) informs the way we humans interact with and value Nature. This enhanced value should be of great interest to the parks world for the obvious reason that an engaged public will be more likely to exert the political pressure to protect and in some cases create more natural spaces. This brings us full circle back to the park prescription as a powerful tool to promote human health and to protect our environment.

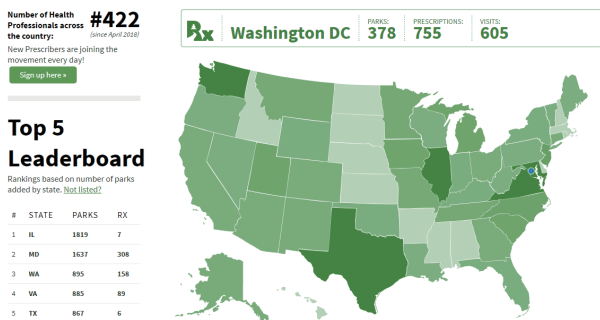


Figure 2 leaderboard of PRA

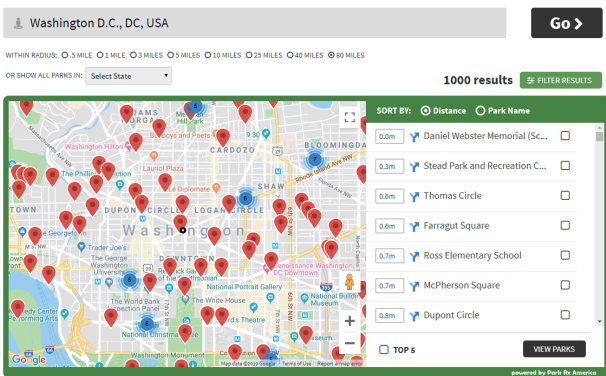


Figure 3 Website of findparks

A park prescription is literally a prescription to spend time in a nature-rich setting, most commonly a park. The term “park prescription” is often used synonymously with “nature prescription”.

Naturally, as a physician preoccupied with how better to help my patients with preventing and treating chronic disease, I became intrigued with the notion of actually prescribing nature to my patients and their families real time during office visits.

For the last several years, I have worked diligently to take this concept of “park prescription” and give it the structure it needs in order to standardize the prescribing of nature in the office setting. In 2017, I founded Park Rx America (PRA), a non-profit organization whose mission is to educate health professionals about the benefits of prescribing nature and to provide an electronic platform through which registered health professionals can easily locate and prescribe visits to nearby nature-rich locations. Every PRA park prescription specifies place, activity, dose, and frequency. Prescriptions are delivered via text message and with a reminder for the patient to fill his/her prescription. Our park prescribing platform also provides an easy pain-free way to document the park prescription in the medical record. By prescribing nature using our platform, clinicians can take advantage of the added clinical value of specificity, electronic reminders, and a patient/client-centered commitment to take the first step to redirect their trajectory of illness into one of health. We at Park Rx America are thrilled to partner with EIM and ACSM in our common goal of encouraging more active time in nature-rich areas. I invite you to visit [www.ParkRxAmerica.org](http://www.ParkRxAmerica.org) to learn more about Park Rx America!

Reference

- 1) Li Qing(2010): Effect of forest bathing trips on human immune function, Environmental Health and Preventive Medicine15, 9-17



Figure 4 supporters for PRA