

## Nature and Human Health Connections in Philadelphia

### Background

There is a national movement to promote community health and wellbeing by getting children and families to be more active outside especially in public green spaces. This movement is supported by new collaborations between parks, land managers, and the medical community. These emerging programs, such as Philadelphia's NaturePHL, a collaboration between the Schuylkill Center for Environmental Education (SCEE) and Children's Hospital of Philadelphia (CHOP), create a needed bridge between the health and environmental sectors, and enable clinicians to provide specific, meaningful counseling and resources addressing where, how often and what patient families can do to get outdoors.

Philadelphia's NaturePHL is part of a growing trend. According to the National Park Rx Initiative, there are 75-100 park prescription programs across the United States. While differing in name, they share similar structures and objectives. For programs aimed toward children, pediatricians prescribe patients time in green space, and reference a growing scientific literature that indicates that children who spend more time outside increase physical activity, improve attention and have lower rates of depression. NaturePHL, like many park prescription programs, is a collaboration between pediatricians, environmental groups, government agencies, private corporations, and urban families.

Established in 2014, NaturePHL's objective is to increase the amount of time children play outdoors by connecting them with parks and playgrounds in the city. Primary care physicians began to carry out NaturePHL in CHOP Primary Care Clinics (Cobbs Creek and Roxborough) in August 2017. During annual well-child visits, physicians inform patients about the benefits of time outside. They then refer families to the NaturePHL website to locate nearby parks. The physicians provide guidance to children with diagnoses of attention-deficit disorder, anxiety, depression, overweight/obese, and children who indicate spending limited time outdoors. Some patients are referred to a Nature Navigator who facilitates their access to one of the city's public parks or programs.

However, many barriers exist for patients in following-through on the actions prescribed by their doctors. One study (City of Philadelphia Commission on Parks and Recreation, 2013), based on a survey of 170 Philadelphia residents, found that perceptions of safety, insufficient access, and values were the most significant barriers preventing residents from spending more time in parks and outdoor spaces. Specific barriers to adherence to a Nature prescription have not been evaluated.

In addition, physicians face numerous challenges in adding nature prescriptions to clinical visits. Not all physicians may be familiar with existing evidence of the health benefits of outdoor time, and they may not have time during patient visits to adequately discuss and refer patients to nearby parks and programs. Barriers faced specifically by physicians and caregivers have been under-explored.

### **Investigators / Advisors**

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### **Areas for Research**

Take part in carrying-out a study to assess physician attitudes and nature prescribing behaviors, and to assess change in self-reported patient behaviors and beliefs regarding nature prescriptions and spending time in nearby parks and greenspace.

This position would involve meeting patients and their families prior to their scheduled well-child office visits to administer a survey. Data management and analysis are also important aspects of this project.

Other questions for research include:

- What are the most effective ways to connect families with outdoor spaces and programming?
- Which outdoor recreation programs or activities are incentives for family participation?
- What support do families need to spend more time outside?