An assessment of health promotion programming at our nation’s parks

NPS OPH HEALTH PROMOTION INITIATIVE
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DEFINITION OF TERMS

M&E: Monitoring and Evaluation

NPS: National Park Service

OPH: Office of Public Health

Obese: The term is defined as a BMI of 30.0 or higher (WHO, 2006, CDC 2009).

Overweight: The term is defined as a body mass index (BMI) of 25.0-29.9 (WHO 2006, CDC 2009).

CDC: Centers for Disease Prevention and Control

USDHHS: U.S. Department of Health and Human Services
Introduction

The U.S. National Park Service (NPS) is composed of nearly 400 parks, preserving some of America’s most pristine natural lands and ecosystems, and providing places for outdoor enjoyment. The NPS Office Public Health (OPH), guided by its core principles, recognizes the interrelated connection between humans, animals, and the natural world. NPS OPH aims to protect and improve the health of all species and the environment, and promotes stewardship by inviting communities to connect with their natural surroundings.

Now more than ever, the NPS Office of Public Health is playing a key role in leading our nation to achieve better health. Health-related programs exist throughout the park system and enable individuals and communities to take charge of their health, while having fun and caring for the natural environment.

As part of the NPS OPH Health Promotion Initiative launched in 2010, NPS has conducted an inventory of health programs in the park system. The inventory assesses the scope of health promotion activities at the regional and national levels, identifies barriers to participation, and serves a learning tool for all parks.
Problem Statement

In recent decades, rates of regular physical activity have decreased while trends in obesity have sharply increased in America.\textsuperscript{1, 2} Today, overweight and obesity continues to be a growing epidemic, affecting two-thirds of adults\textsuperscript{3} and one in three children\textsuperscript{4} in the U.S., as reported by The Surgeon General’s Vision for a Healthy and Fit Nation.\textsuperscript{2}

Childhood obesity increases the risk of short- and long-term health effects, including type 2 diabetes, asthma, sleep apnea, bone and joint problems, psychological and mental health issues, and heart disease among others.\textsuperscript{5, 6} Childhood obesity also significantly increases the risk of obesity in adulthood,\textsuperscript{7} which is well documented for increasing the risk of chronic conditions such as heart disease, respiratory illness, hypertension, type 2 diabetes, certain cancers and stroke.\textsuperscript{8}

The Centers for Disease Control and Prevention (CDC) and the American College of Sports Medicine recommend at least 30 minutes of moderate physical activity on most days.\textsuperscript{1} However, recent findings from CDC show the majority of American adults are not meeting these recommendations.\textsuperscript{1} In addition to increasing the risk of obesity and chronic disease, physical inactivity is attributable to millions of dollars in health care costs,\textsuperscript{9} thereby, exacerbating the economic burden.

As a result, obesity remains at the forefront of public health concerns. Obesity results not only from poor dietary habits and insufficient physical activity, but it is also linked to social factors and the natural and build environment.

A renewed movement for promoting health through human connections with nature is taking shape through collaborative efforts between medical professionals, research centers, public health officials, and government agencies, including the U.S. National Park Service.\textsuperscript{10, 11} These efforts are supported by the growing body of evidence that
demonstrate public park use increases positive health outcomes and improves overall wellness among children\textsuperscript{12,13} and adults\textsuperscript{14-19}.

As the majority of the U.S. population lives in urban or suburban areas, greater emphasis is placed on parks, as they may be the only source of nature for some communities. Public parks are promoting health through a range of activities such as community gardening in urban areas, volunteer opportunities to educate visitors and restore park lands, and nature hikes to observe wildlife. Studies show outdoor activity in parks fosters emotional and psychological well-being\textsuperscript{15-17,19}, physical activity\textsuperscript{18-19}, increases attention levels among students\textsuperscript{13}, may increase social cohesion and social integration\textsuperscript{19}, and exposes children to outdoor leisure activities\textsuperscript{20} (to address what has been termed by Richard Louv as “nature-deficit disorder”). Additionally, Norton and Suk\textsuperscript{16} highlighted findings from the 2004 Outdoor Industry Association report, which found human-powered outdoor activities, including walking, biking and camping, have the greatest longevity (activities continued into adulthood) and serve as gateway activities to other sports such as kayaking, snowshoeing, trail running, rock climbing, and cross country skiing\textsuperscript{22}.

This evidence, linking the health benefits between human health and outdoor exposure, has prompted NPS to further explore new opportunities for parks and the community of public health and medical professionals to promote health in public parks\textsuperscript{11,17}. 


Park Assessment

An assessment of health promotion programs at NPS parks was conducted to create a registry of park programs. This registry will allow for a comprehensive analysis of programming at multiple levels—state, regional, and national. It aims to serve as a learning tool for parks and improve programming by identifying ways to address access and implementation barriers, and illuminate exemplary programs.

Most of the data collected for this assessment is from the 2008 Promoting Healthy Outdoor Recreation Survey, developed by Dan Wink, Deputy Director, NPS.

Based on the assessment, numerous programs deserve recognition. However, the summary report has selected three programs that will be described in further detail as case studies. Cases were evaluated and selected if they demonstrated at least two of the three primary evaluation criteria. The criteria has been modified from the NPS Best Idea platform:

EVALUATION CRITERIA

1. Caring for the Environment
   - Saving Species
   - Reducing Our Carbon Footprint
   - Protecting Ecosystems

2. Inviting Stewardship
   - Connecting with Nature
   - Inspiring A New Generation

3. Promoting Human Health
   - Enabling Healthy Eating
   - Improving Mental Wellness
   - Promoting Physical Activity
Key Findings and Case Studies

Most of the parks reported programs having at least one of the primary criteria components. The data was analyzed by park as well as by region. However, we were unable to collect data from the Alaska region, and therefore, no information from this region was evaluated. Similarly in the Southeast region, limited information was collected and analyzed.

The greatest amount of information was collected from the Pacific West region, followed by the Midwest, Northeast, National Capital, and Intermountain regions.

The survey did not elicit information from participants on nutrition or mental health. However, a handful of parks, particularly in the Pacific region shared current examples of how these health topics are being promoted through programming such as cooking classes and team activities to increase social cohesion.

It is important to note that many programs reported unique program features, including the use of incentives and social media to promote and encourage visitor participation. For example, at Craters of the Moon National Monument & Preserve, the park has partnered with various businesses and conservation groups on Snoeschool, which provides visitors with a bright and inviting webpage that provides useful information.

Further examples of how the National Park Service is promoting health in the parks are illuminated in the following three case studies.
Case 1

Death Valley ROCKS

*Location:* Death Valley National Park situated in Nevada and California

*Feature Highlight:* Overnight camp for urban and rural youth grounded in interdisciplinary experiential learning, promoting human health and environment stewardship.

Death Valley ROCKS aims to promote land stewardship and environmental ethics in the next generation by providing a hands-on, real-life setting where students can cultivate knowledge and an understanding of the physical and natural sciences. This program incorporates a range of teaching methods to promote achievement among students with different learning styles.

The program consists of unique activities and program content including:

- **Inter-disciplinary Education Activities incorporating:**
  - Biology
  - Geology
  - Astronomy
  - Language arts
  - History
  - Art
  - Mathematics
  - Physical education

- **Recreational Sessions:**
  - Learning how to set up and break down tents
  - No trace ethics
  - Cooking and cleaning outdoors
  - Hiking safely in the desert

- **Citizen and Service Learning Opportunities**
Death Valley ROCKS provides free transportation to students to help minimize access barriers and increase participation. In addition, online resources are available, including a toolkit for teachers.

Currently, the program does not conduct any formal evaluation, but the program, established by the former Superintendent JT Reynolds, has received positive feedback from both students and teachers.

Case 2

Fort Dupont Community Garden

Location: Fort Dupont Park in Washington, D.C.

Feature Highlight: Community gardening in an urban setting that encourages sustainable living, healthful eating, and social capital.

The Fort Dupont Community Garden aims to educate local, urban residents on growing and harvesting healthy food through sustainable land practices, while also promoting social cohesion among community members and offering a venue for mental, physical and spiritual renewal. Some of the key program features include:

- Organic gardening practices
- Partnerships with local schools
- Educational sessions and gardening demonstrations
- Hands-on support

The program is designed to encourage active and ongoing participation among gardeners of all ages and abilities. It offers online information to promote the program and provides important information (available at http://www.nps.gov/fodu/fort-dupont-community-gardens.htm). In addition, the Community Garden partners with nonprofit and health organizations, while also drawing in interns and volunteers that serve a critical role in the program’s operations.
Case 3

Walk the Badlands

*Location:* Badlands National Park in South Dakota

*Highlighted Feature:* Semester-long program that promotes human health through physical activity and disease prevention education, while instilling principles of environmental stewardship.

The Walk the Badlands program is designed to encourage students to make healthy life-style choices by offering activities that promote exercise and connections with natural areas. The program is long-term, and uses a reward system to create lasting healthy habits. Students work in teams to earn incentives, thereby, improving self-esteem and increasing social cohesion. Additional program features include:

- Ranger-guided school field trip
- Logbooks that track team achievement
- Culminating reward: field trip to a remote and spiritually significant place in the Badlands

The program offers an extensive online toolkit for educators. Some of the unique curriculum available online include a virtual experience, videoconference lesson plans, and a *Walk the Badlands Health & Fitness Program.* Through these resources, classrooms are able to further explore topics such as prairie ecology, human history of the Badlands, ecological interdependence, and fossil discovery. While at present, the program does not have a formal monitoring or evaluation system, the exercise logbook serves as an indicator for increased physical activity and improved health.
Conclusion and Recommendations

This summary report is based on preliminary findings. We acknowledge the limited number of data sources included in this assessment may not accurately and fully reflect health promotion activities at the parks within the National Park Service. Therefore, we recommend data collection efforts be continued. Further, the scope of such efforts may be expanded to include local and state parks.

Monitoring and evaluation is key to any program, intervention, or activity that intends to monitor trends and outcomes. However, few parks in our assessment reported a surveillance or evaluation plan, which we acknowledge may be due to response fatigue or the survey design rather than the absence of M&E. As funding to improve and expand programming is often based on the demonstration of results, we recommend all parks integrate M&E into health promotion programming.

References


