

## CASE STUDY

# Development of a Healthy Parks Healthy People strategic action plan for Hot Springs National Park

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**T**HE WORLD HEALTH ORGANIZATION HAS ESTIMATED that worldwide 1.9 million deaths annually are the result of physical inactivity, the equivalent of approximately 1 in 25 deaths (as cited in Barton and Pretty 2010, p. 3947). Yet, due to modern society's dependence on technology, mechanized transportation, and involvement in primarily sedentary occupations, levels of physical activity and mental health status continue to plummet. On a more local level, Arkansas is experiencing similar health concerns related to inactivity. According to the Centers for Disease Control and Prevention, 30% of Arkansas citizens are obese (CDC 2012). Furthermore, 30% of Arkansas adults (aged 20 years and over) reported no leisure-time physical activity (CDC 2012).

While much of the responsibility for personal health lies with the individual to take advantage of opportunities, communities and public agencies have the responsibility of providing accessible venues and environments that encourage recreation and physical activity. Research strongly supports that exposure to the natural environment and involvement in the out-of-doors supports physical and mental health, including (1) decreased stress, (2) reduced crime rates, (3) improved social supports, (4) restoration and renewal for those experiencing psychological exhaustion, and (5) improved ability to maintain mental focus (Barton et al. 2009; Coon et al. 2011; Pretty et al. 2007).

While parks offer phenomenal opportunities for users to experience natural beauty and time for peaceful pause, tranquility, and quiet self-reflection, parks also hold potential for serving as an advocate and avenue for elevating participation in physical, energy-expending activity (Cohen et al. 2007). To fulfill this potential, park leaders must consider what aspects of a park promote or deter visitors' use of an area for active recreation and exercise. Researchers also acknowledge that in addition to individual benefits, it is important to consider the outcomes that an interrelationship among parks, natural settings, and personal and public health could have on national initiatives, such as decreased health care costs and economic growth.

## Abstract

Hot Springs National Park is in a special position for the Healthy Parks Healthy People (HPHP) initiative based on its rich history as an early national reserve intended to conserve geothermal springwater for the purposes of public health, wellness, and enjoyment. Nearly two centuries after its first protection, Hot Springs National Park has the potential to serve as a keystone in the HPHP movement and to act as a catalyst for change in the role of national parks as venues not only for recreation and conservation, but also for health and well-being. We proposed a comprehensive project to develop an HPHP strategic action plan for Hot Springs National Park to incorporate and implement HPHP principles. The project consisted of three phases: (1) a review of literature on HPHP topics as they relate to assets available within the park, (2) an HPHP strategic planning workshop, and (3) development of an HPHP strategic plan for the park. We reached conclusions by incorporating a mixed-methods approach, using secondary data from the literature review and primary data from workshop participants. Workshop attendees identified a number of short- and long-term goals for Hot Springs National Park that will achieve the guiding principles of the HPHP initiative, enhance the health and wellness of park visitors and the surrounding community, while also keeping cultural and environmental impacts to a minimum.

## Key words

community, health, planning workshop, visitors

## Healthy Parks Healthy People

In 2011, NPS director John Jarvis initiated a five-year action plan for Healthy Parks Healthy People (HPHP). The intent of the movement is to consider how the national parks can play an influential role in reversing the current trend of poor health among U.S. citizens (NPS Health and Wellness Executive Steering Committee 2011). The mission of the National Park Service to preserve resources and to provide for the public's recreational enjoyment of those resources makes the National Park Service a vital player in efforts to improve the health and well-being of the U.S. citizenry. Several national-level strategic planning meetings involving representatives from the National Park Service, the

National Park Conservation Association, and community and university partners have been held to further define and identify the goals of the HPHP movement. From these meetings a vision and seven guiding principles have been established (table 1). The initiative is designed to build and foster existing relationships among national, state, and local parks, as well as business and health care leaders, foundations, and advocacy programs as a means of better communicating and facilitating the role parks play in public health.

## Hot Springs National Park

With the purchase of the Louisiana Territory in 1803, the land region now recognized as Hot Springs National Park, Arkansas, became part of United States territory. News of the springs spurred the Dunbar-Hunter expedition in 1804 and 1805 to investigate the thermal springwater. Immediately the uniqueness of and need to safeguard the natural springs were recognized. The federal government established a reserve to protect the natural springs and surrounding landscape in 1832. This makes Hot Springs National Park the oldest protected site in the National Park System.

In the late 1870s, the region began to evolve from a rugged countryside to a more developed, urbanized area in which roads, large buildings, lavish spas, and park landscapes designed and built by the Department of the Interior thrived. By the turn of the 19th century, the natural springs had been enclosed by protective structures, and the thermal waters distributed to bathhouses for health and mental restoration. A “Bathhouse Row” evolved over many years and at one time consisted of more than 20 bathhouses, providing public health and wellness services to the community through the 1950s (fig. 1). At their peak, the bathhouses provided therapeutic pools, gymnasiums, gardens, billiard rooms, massage therapy, hydrotherapy, and mercury-based therapies to the public. Today, nine bathhouses still stand in Hot Springs National Park and provide a variety of services to the local community and park visitors.

In 2012, a park foundation statement was created that builds on the original intent of Hot Springs National Park: “The purpose of Hot Springs National Park is to protect the unique geothermal spring water and associated lands for public health, wellness, and enjoyment” (NPS 2008, p. 8). Because the legislative purpose of Hot Springs National Park is closely linked with health, the park already offered numerous health-oriented programs: (1) the “Let’s Move Outside” campaign encourages hiking and walking on the extensive trail system in the park, (2) the Junior Ranger Program provides youth an opportunity to learn about the history of the park and the purposeful uses of the hot springs water and land

**Table 1. Seven guiding principles of the Healthy Parks Healthy People initiative**

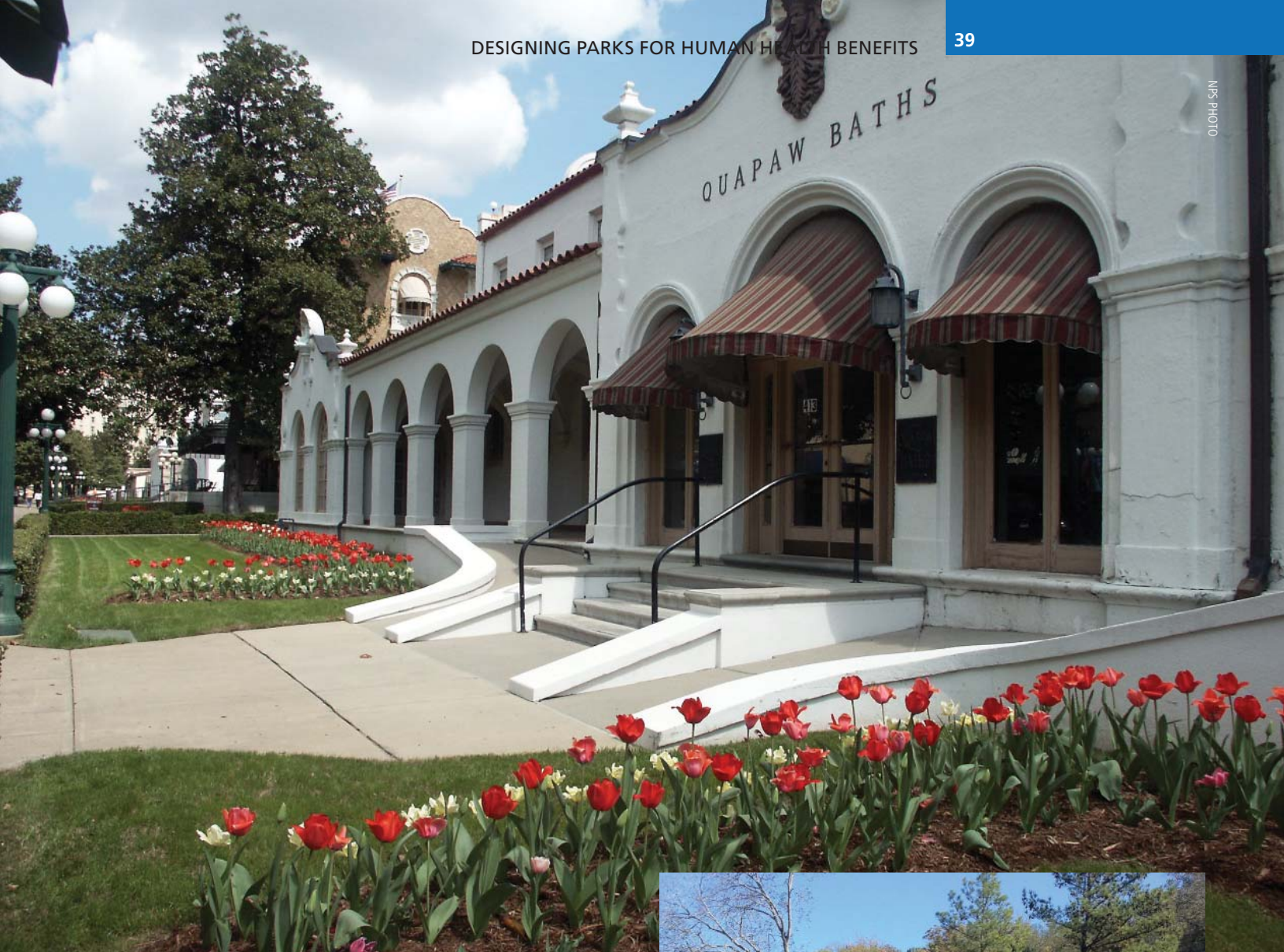
We promote health and well-being as an interrelated system linking human health to natural landscapes and all species.
We seek expertise and resources from a wide range of partners in the public and private sectors.
Our aim includes activities that contribute to physical, mental, and spiritual health and social well-being.
Our work takes place both within and beyond park boundaries.
We encourage uses that promote the health of all species while avoiding those that impair resources.
We seek to provide equitable access to open spaces and natural places.
Our commitment to improving public health will be mirrored in internal programs for our workforce.

area for health, (3) the Junior Trail Ranger Program in partnership with the “Let’s Move Outside” initiative encourages children to get involved in physical activity and exercise outdoors, and (4) two bathhouses along Bathhouse Row provide therapeutic pools, massage, and hydrotherapy. Hot Springs National Park’s rich history as an early national reserve to preserve geothermal springwater for the purposes of public health, wellness, and enjoyment and its mission for health and wellness puts it in a special position in support of the HPHP movement.

## Project overview

The purpose of this project was to develop an HPHP strategic action plan for Hot Springs National Park. Toward this end, Clemson University faculty and graduate students collaborated with staff and administration at the park to identify key stakeholders to participate in a strategic planning workshop. A three-day workshop was held in October 2012 in the town of Hot Springs. The workshop was planned and implemented by Clemson University researchers and Hot Springs National Park staff in close coordination. We generated a list of potential workshop attendees that included state and national experts in public health, fitness-wellness, and parks and recreation. We also invited local and regional experts in these subject areas, stakeholders from both the for-profit and nonprofit sectors, and several Hot Springs National Park staff to participate. The workshop was attended by approximately 25 people representing a diversity of interests, subject areas, and affiliations. We encouraged attendees to focus on three primary questions during the workshop: (1) how is Hot Springs National Park’s mission of public health, wellness, and enjoyment outlined in the 2012 foundation statement interpreted by local residents and out-of-town visitors?, (2) how does Hot Springs National Park successfully accomplish this mission?, and





**Figure 1 (above).** Established in 1832 as a federal reserve dedicated to protecting geothermal springwaters and associated lands for public health, wellness, and enjoyment, Hot Springs National Park in Arkansas is an ideal focal area for the Healthy Parks Healthy People initiative.

**Figure 2 (right).** Participants of the October 2012 workshop stroll the park promenade and learn about the park's historical features and contemplate the potential for enhanced public engagement for health and well-being.

(3) how is success measured? Workshop-based answers to the last two questions are the focus of this article.

The workshop included an introduction to and discussion of goals; a tour of Hot Springs National Park (including health and wellness resources) (fig. 2); presentations by subject-matter experts on relevant aspects of public health, recreation/leisure, parks in general, and Hot Springs National Park history; individual and group brainstorming sessions; topical breakout sessions; and sessions in which we evaluated and synthesized workshop outcomes (interim and final). Of particular note, Dr. Brent Bauer, director of the Mayo Clinic's Complementary and Integrative Medicine Program, presented a practicing clinician's perspective





on integrating health, wellness, and Hot Springs National Park-related resources (e.g., spa experiences, mind-body activities; fig. 3). The workshop was led by a professional facilitator from Clemson University who was trained and experienced in conducting group strategic planning processes. The Clemson University project team helped to further focus the workshop efforts toward the goal of gathering information to inform an HPHP strategic action plan.

The workshop agenda was intentionally designed to lead workshop participants in gathering information (via experiences and talks), brainstorming and evaluating those ideas, and finally building a shared agreement among the attendees on recommended actions, related constraints, and measures of success. The facilitator and project team took notes on flipcharts, and these were organized and posted throughout the room. This process helped record the workshop results while creating opportunities for participants to review, use, and validate the workshop outcomes.

## Workshop outcomes and project proposals

Most of the interactive portions of the workshop were focused on brainstorming and evaluating ways in which Hot Springs National Park could better integrate public health, wellness, and enjoyment. In table 2 we present key themes that emerged for any actions to be taken as part of a future plan.



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**Figure 3.** Dr. Brent Bauer, director of the Mayo Clinic's Complementary and Integrative Medicine Program, speaks to participants of the HPHP strategic planning workshop at Hot Springs National Park in October 2012.

Workshop participants generated a large number of specific ideas for programming, facilities, events, partnerships, and activities that could help to further incorporate health and wellness at Hot Springs National Park. These ideas were explored and discussed, including promoting biking by allowing access, holding biking events, dedicating bike lanes, and providing storage racks; working with hospitals, physicians, and health providers to write “park prescriptions for health”; a rehabilitation center that takes advantage of the thermal waters; encouraging youth to participate in physical activities and play in the park (e.g., sports

**Table 2. Key themes for HPHP actions taken as part of a future plan**

Theme	Description
Fun	Efforts should focus primarily on creating enjoyment that has the secondary benefit of being healthy and promoting wellness, and where possible provides opportunities for socialization.
Informed	Actions should be guided by the collection of reliable, empirical information on what visitors want, visitor characteristics, visitor activities (including locations of use), and their attitudes toward potential changes. This should be done prior to taking any substantial action so that good decisions are made and baseline data are available.
Intergenerational	Ideas should be developed that appeal to all ages, and where possible have visitors of multiple generations interacting regularly. Also, at least some actions should place particular emphasis on better connecting younger adults and families with children to the park.
Collaborative	Actions should leverage and facilitate success by working with partners (e.g., friends groups, local educational institutions, state and local governmental entities, health providers, hospitals, businesses, and nonprofit groups) and with current local or national initiatives.
Marketed and promoted	As part of any action, the National Park Service should actively engage participants and the local community through free media, involving students, comarketing, sponsorships, creating a guide for health professionals, and linking with community events.
Achievable and demonstrable	Actions, at least those in the short term, should be those that can be most certainly accomplished and that produce immediate, tangible, and impactful results. This suggests the need for a demonstration project that would build on momentum of existing efforts, require minimal investments, not overburden NPS staff, produce multiple benefits, and be innovative or unique.

*Hot Springs National Park is now poised to serve as a keystone in the HPHP movement and to act as a catalyst for change in the role of national parks as venues not only for recreation and preservation, but also for health and well-being.*

**Table 3. Ideas for implementing an HPHP program**

#### **Model and promote health and wellness within the park's staff**

*Example: Worksite Wellness Program*—This program would allow Hot Springs National Park staff to model and promote health and wellness through example. Such a program could include changing practices to ensure time for physically active work during each employee's workday, extending policies granting law enforcement ranger opportunities for on-duty exercise to all employees, and

providing employee incentives for participation in health and wellness programs. Current but informal successes with employee health and wellness (e.g., employees' weight loss through lunchtime walks and peer-supported dieting) could be used as a starting basis for this program.

#### **Engage local partners and serve the local community in promoting health and wellness**

##### **Within park boundaries**

*Example: Whittington Park (a traditional outdoor park area within Hot Springs National Park boundaries) Activation*—This idea is focused on creating more demand for health and wellness-related—use of Whittington Park by residents and visitors. This would include promoting the use of the space by appropriate private businesses (e.g., yoga and fitness instructors) and creating structural draws to the park, such as a fitness course, walking path, children's play area, or measured running/biking loop.

##### **Outside park boundaries**

*Example: A Health Event*—this idea would take advantage of the draw that festivals and events have in engaging a large number of people. The event could be focused directly on health and wellness, such as a competitive sports event (e.g., running events/races); a noncompetitive physical activity gathering (e.g., a yoga festival); or a fair that would allow people to interact with health providers, try healthy foods and drinks, and exercise in unusual ways (e.g., Indian club-swinging). Health and wellness could also be subtly incorporated into events (some currently happening) focused on arts, theater, or foods/drinks.

#### **Engage state, regional, and national partners and serve these geographic levels in promoting health and wellness**

*Example: Million Hearts and Smoking Cessation Programs*—Workshop participants identified specific opportunities for Hot Springs National Park to become engaged with state and national health initiatives. This included participation in the Million

Hearts Campaign and working with established state and national programs for smoking cessation (particularly those related to a workplace).

#### **Actively promote health and wellness among Hot Springs National Park visitors**

*Example: Geocaching*—This idea would develop, formalize, and market the activity of geocaching in the park. Virtual caches (a specific location that needs to be found using a geographic positioning system [GPS], with a logbook to be signed once found) would be placed in areas of the park (likely in undeveloped parts) that would necessitate physical activity to reach. A series of caches could be developed into a "trail" and stamps could be used at caches (in lieu of a logbook) that would tie into the existing NPS Passport to Your National Parks® Program. This would be a low-cost, achievable that could be facilitated by linking to local and state geocaching organizations.

*Example: QR Codes*—Similar to the geocaching trail idea, a series of locations (likely in developed areas) could be marked with QR codes (a two-dimensional bar code readable by smartphones that transmit information) to form a trail that requires physical activity to complete and could provide information on health and wellness. Completion of this trail could be a requirement for the junior ranger program, tied to a visitor incentive (e.g., a token gift or discount), or be integrated into the existing NPS Passport to Your National Parks® Program. Also, this trail could be a theme-based children's exhibit, perhaps focused on water-life-health connections, that includes an interactive water fountain, bike trail, or walking path.

#### **Reconceptualize Hot Springs National Park as a park dedicated to and founded on the promotion of health and wellness**

*Example: A Tobacco-Free Park*—This idea would encourage smoking cessation and a tobacco-free lifestyle. The substantial precedent for prohibiting tobacco at some public facilities (e.g., hospitals, schools) would be extended, by policy or directive, to Hot Springs National Park. Such a program could be initially applied to employ-

ees, limited to certain areas (e.g., Bathhouse Row and facilities), promoted through the media, and could include designating areas for smoking that required some physical activity to reach. The ultimate goal of this would be to make Hot Springs National Park tobacco-free for both employees and visitors.

#### **Provide a laboratory for innovation, advancement, and applied research related to the connections among health, wellness, parks, recreation, and nature**

*Example: An HPHP Science and Learning Center*—Some parks, such as Acadia and Denali National Parks, have established formal science and learning centers to facilitate research related to park resources. A similar center, the first of its kind, could be established at Hot Springs National Park to facilitate research related to HPHP

initiatives in the park. This center could host researchers and health providers, sponsor HPHP conferences/meetings, facilitate interdisciplinary research, and provide a library of HPHP research publications and reports.

#### **Develop techniques and best practices for the measurement and monitoring of outcomes related to the HPHP actions at Hot Springs National Park**

*Example: Apply established processes*—Well-established and tested processes for monitoring the obtainment of objectives and evaluating program effectiveness

should be applied to any HPHP initiative at Hot Springs National Park.

tournaments, hiking or walking trips, treasure/scavenger hunts, activities specific to the talents and interests of park employees and community members, active games like “olly olly oxen free”) by partnering with the local recreation organizations, youth clubs, community groups, and schools; an HPHP research center, in coordination with universities, that focuses on the connections between health (e.g., obesity prevention) and nature; and a Health Advocate-in-Residence program similar to the existing Artist-in-Residence Program in the National Park System.

Many of these ideas have merit and potential for success and should be considered for implementation. However, only the ideas embraced by an overwhelming majority of workshop participants were explored in detail. These mutually agreed-upon ideas fell into seven categories as presented in table 3.

Meeting participants identified numerous local and state partners that could assist Hot Springs National Park with taking action on these ideas and developing them further. Also, Hot Springs National Park could partner in local and state health efforts by coordinating and hosting a health and wellness fair to launch the “new” programs in the park and community. The park could use the event to develop relationships with potential partners in the community (and beyond) by means of exhibitions, demonstrations, programs, and sponsorships. Other suggestions were that the park could make special use permits and space (both indoor and outdoor) available to appropriate health and wellness providers, and it could partner with concessioners and local restaurants to offer and market healthy eating choices.

Meeting participants also discussed how to define and measure the success of HPHP efforts at Hot Springs National Park. The first step is for the park staff to develop SMART (Specific, Measureable, Attainable, Relevant, and Time-specific) goals and objectives through subsequent internal planning meetings. These goals and objectives will be the foundation for programming success in Hot Springs National Park’s efforts to enhance the health and well-being of visitors and the community. As a team we caution against using only health status indicators and health behavior rates as measures of success, as there are too many ecological influences that are out of a park’s control. Second, program administrators should use process evaluation to help ensure that programs are developed collaboratively, promote Hot Springs National Park as a healthy park, and are designed and delivered with fidelity to the guiding principles and themes (tables 2 and 3). An evaluation framework such as RE-AIM (Klesges et al. 2005; Dziewaltowski et al. 2004), described on the Web site <http://www.re-aim.org/index.html>, can be used for this, and emphasizes assessing reach, effectiveness, adoption, implementation, and maintenance. Third, the NPS’s Visitor Experience and Resource

Protection (VERP) framework was recommended (in combination with the evaluation framework above) as a mechanism for determining and monitoring the outcomes of Hot Springs National Park’s HPHP actions. The VERP process helps establish effectiveness measures for each goal/objective (termed indicators) and measures of success (termed standards).

## Recommendations and implications

As a team our primary recommendation was to implement the actions developed and vetted through the HPHP strategic planning workshop (table 3, previous page). In 2013, Hot Springs National Park staff took an important and substantial step by developing—based on the workshop outcomes described above—a strategic action plan that defines the objectives and goals for implementing the HPHP initiative at their park. This plan also provides a detailed description and prioritized list of HPHP actions that will be undertaken in the park and a schedule for their implementation. Hot Springs National Park is now poised to serve as a keystone in the HPHP movement and to act as a catalyst for change in the role of national parks as venues not only for recreation and preservation, but also for health and well-being.

Some caution is warranted, however, for no work or progress is ever made without a meaningful and often substantial investment of resources, particularly effort and money. Lack of commitment of required resources to a plan often results in inaction. Securing adequate program funding and leadership support at the regional and national levels is a necessary first step to implementing the recommended actions. This includes programmatic support and monies to conduct a visitor HPHP needs assessment (including baseline data collection), implement low-cost and near-term HPHP actions, complete a substantial HPHP demonstration project, and dedicate staff to the HPHP efforts.

The information-gathering approach employed in this project is applicable to all parks interested in starting an HPHP program. Although what has been outlined in this article is specific to Hot Springs National Park and the idiosyncrasies of the surrounding community, the approach is replicable. As with any planning process, interested parks are advised to first identify and establish the reasons for and why they are pursuing the plan. Getting parties on board at all levels within the agency, and cementing understanding and buy-in from the agency itself, are the first step toward success. Second, soliciting input from key stakeholders and from a variety of fields (as was done here) can contribute to success. Third, park staff should then assess their specific goals

and the actions they would take to implement an HPHP program at their park.

## Conclusions

As suggested by Director Jarvis, the time has come for national parks to embrace and encourage healthy behaviors and lifestyles, and to become an active player in efforts to address the current health crisis in the United States. Hot Springs National Park, with its charge to preserve and protect healing thermal waters from natural springs, is an ideal fit for the HPHP initiative, and it is in a unique position to be an important keystone in the adoption of the HPHP movement in parks nationwide.

It seems clear that the time for action to promote health and wellness in national parks is now. Our nation's needs to do so are both compelling and critical. Equally apparent is that Hot Springs National Park offers the perfect context for implementing such actions and serving as a leader and model for the HPHP initiative in the National Park System. The next steps in doing this are to secure the necessary resources and to take action.

## References

- Barton, J., R. Hine, and J. Pretty. 2009. The health benefits of walking in greenspaces of high natural and heritage value. *Journal of Integrative Environmental Sciences* 6:1–18.
- Barton, J., and J. Pretty. 2010. What is the best dose of nature and green exercise for improving mental health? A multi-study analysis. *Environmental Science and Technology* 44(18):3947–3955.
- Centers for Disease Control (CDC). 2012. Overweight and obesity: Arkansas state nutrition, physical activity, and obesity profile. Report CS233917-C. Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity, and Obesity. Available from <http://www.cdc.gov/obesity/stateprograms/fundedstates/pdf/Arkansas-State-Profile.pdf>.
- Cohen, D. A., T. L. McKenzie, A. Sehgal, S. Williamson, D. Golinelli, and N. Lurie. 2007. Contribution of public parks to physical activity. *American Journal of Public Health* 97(3):509–514.
- Coon, J. T., K. Boddy, K. Stein, R. Whear, J. Barton, and M. H. Depledge. 2011. Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental well-being than physical activity indoors? A systematic review. *Environmental Science and Technology* 45:1761–1772.
- Dzewaltowski, D. A., P. A. Estabrook, L. M. Klesges, S. Bull, and R. E. Glasgow. 2004. Behavior change intervention research in community settings: How generalizable are the results? *Health Promotion International* 19:235–245.
- Klesges, L. M., P. Estabrook, D. A. Dzewaltowski, S. Bull, and R. E. Glasgow. 2005. Beginning with the application in mind: Designing and planning health behavior interventions to enhance dissemination. *Annals of Behavior Medicine* 29:66–75.
- National Park Service (n.d.a). Mission. National Park Service, Washington, D.C., USA. Accessed 25 November 2013 at <http://www.nps.gov/aboutus/mission.htm>.
- \_\_\_\_\_. (n.d.b). The remarkable therapeutic devices of Dr. Gustav Zander. National Park Service, Washington, D.C., USA. Accessed 25 November 2013 at <http://www.nps.gov/hosp/historyculture/upload/zander.pdf>.
- \_\_\_\_\_. 2008. Hot Springs National Park long range interpretive plan. National Park Service, Hot Springs National Park, Hot Springs, Arkansas, USA. Accessed 25 November 2013 at [http://www.nps.gov/hfc/pdf/ip/HOSP\\_LRIP.pdf](http://www.nps.gov/hfc/pdf/ip/HOSP_LRIP.pdf).
- National Park Service Health and Wellness Executive Steering Committee. 2011. Healthy Parks Healthy People U.S.: Strategic Action Plan. National Park Service, Washington, D.C., USA. Accessed 25 November 2013 at [www.nps.gov/public\\_health/hp/hphp/press/1012-955-WASO.pdf](http://www.nps.gov/public_health/hp/hphp/press/1012-955-WASO.pdf).
- Pretty, J., J. Peacock, R. Hine, M. Sellens, N. South, and M. Griffin. 2007. Green exercise in the U.K. countryside: Effects of health and psychological well-being, and implications for policy and planning. *Journal of Environmental Planning Management* 50:211–231.

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