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Park Hop: Pilot Evaluation of an Inter-Agency Collaboration to Promote Park Awareness, Visitation, and Physical Activity in Greenville County, SC

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EXECUTIVE SUMMARY: Parks are important venues for physical activity (PA), but research indicates that they are underutilized by youth. The purpose of this paper is to describe the development and preliminary evaluation of Park Hop, an innovative collaboration of seven parks and recreation agencies to create an incentivized passport-style program to increase awareness, visitation, and active use of parks among youth in Greenville County, South Carolina. Park Hop occurred in summer 2013. It was developed within a family recreation program planning framework as a free, summer-long scavenger hunt designed to encourage children and their families to visit 17 selected parks and recreation facilities and answer clues at each location. The four overarching goals of Park Hop were to 1) increase parks usage and discovery, 2) foster awareness and appreciation for the wealth of parks in Greenville County, 3) increase time spent in PA during park visits, and 4) establish an annual tradition for all to enjoy. The pilot evaluation used multiple methods to collect information about program accessibility, enjoyment, ease of participation, park awareness and visitation, perceived changes in park enjoyment, and park-based PA. A total of 231 youth submitted completed Passports (M=7.0 years). All but one youth (99.6%) indicated that they visited at least one park for the first time as part of the program, with an average of 7.0 new parks visited per youth. Survey results indicated that youth averaged 87.1 minutes of PA on their last park visit, and the majority of parents said their child enjoyed participating (98%) and that they would participate again next year (95.1%). Park Hop successfully influenced park awareness and visitation (especially to new parks) among youth and effectively translated park awareness research into a sustainable initiative that positively influenced youth park-based PA. Further, Park Hop exemplifies a successful collaboration of multiple recreation agencies across Greenville

County. Such partnerships may be critical during times of budgetary constraints while cross-promotion of all area parks offers a wider variety of opportunities to citizens. Implications of this program include the utility of collaboration between multiple parks and recreation departments, the pooling of resources for common goals, and partnering with local health agencies to strengthen the view of parks as community health resources. Overall, this summer-long program provided fun opportunities for families to explore local parks and engage with multiple parks and recreation agencies. With continuous expansion and improvement, such initiatives have the potential to improve use of parks and open spaces in an effort to reduce obesity amongst youth nationwide.

KEYWORDS: *Park, awareness, visitation, physical activity, partnerships, youth*

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Childhood obesity in the U.S. is a priority public health issue due to the increased risk for associated psychological and physical health problems such as poor self-esteem, stigmatization, depression, cardiovascular disease, type 2 diabetes, stroke, osteoarthritis, and cancer (Centers for Disease Control and Prevention [CDC], 2011; Daniels et al., 2005; Freedman, Khan, Dietz, Srinivasan, & Berenson, 2001; Li, Ford, Zhao, & Mokdad, 2009). In the past three decades, rates of obesity have doubled in children and quadrupled in adolescents (Ogden, Carroll, Kit, & Flegal, 2014; National Center for Health Statistics, 2012). In South Carolina, approximately one out of three youth are overweight or obese (CDC, 2010; Kann et al., 2011; National Survey of Children's Health [NSCH], 2014).

Physical activity (PA) plays an important role in the reduction and prevention of obesity in youth (Hills, Andersen, & Byrne, 2011). However, PA rates decline with age, particularly during adolescence (Dumith, Gigante, Domingues, & Kohl, 2011; Kann et al., 2014), and early life PA habits are a strong predictor of later life PA participation levels (Telama et al., 2005). Nationally, more than 70% of students aged 6 to 17 years old are not meeting PA recommendations of at least 60 minutes of daily PA set forth by the U.S. Department of Health and Human Services (NSCH, 2014; Physical Activity Guidelines Advisory Committee, 2008). Similarly, in South Carolina, over 60% of elementary school, 50% of middle school, and almost 60% of high school students are not sufficiently active (Simeon, 2011; NSCH, 2014). These problems are especially prominent in Greenville County, South Carolina where 41% of students are overweight or obese (Piedmont Health Foundation, 2008).

Parks and Physical Activity

Increasingly, healthy community environments are recognized as vital for populationlevel PA promotion and obesity prevention (Sallis, Floyd, Rodriguez, & Saelens, 2012; van Loon & Frank, 2011). Parks, in particular, are key community environments for promoting PA and health among youth given their relatively low cost to maintain and use and widespread availability (Bedimo-Rung, Mowen, & Cohen, 2005; Kaczynski & Henderson, 2007). Indeed, Sallis and Glanz (2006) determined that to reduce or prevent childhood obesity, children need access to places where they can be physically active. A review of physical environment literature concluded that multiple studies demonstrated a positive association between children's PA and public recreational infrastructure including school yards, playgrounds, and open space parks (Davison & Lawson, 2006).

A variety of park-related variables have been shown to be associated with youth PA participation. For example, proximity to parks as well as the specific features therein have consistently been related to greater PA and reduced obesity among children and teens (Besenyi et al., in press; Frank et al., 2007; Potwarka, Kaczynski, & Flack, 2008; Roemmich et al., 2006; Salois, 2012; Wolch et al., 2011). However, some research has reported that awareness of available park resources is often limited among community members and that greater park awareness can also have a significant influence on park visitation and parkrelated PA participation. For example, Lackey and Kaczynski (2009) found that only 18% of participants achieved a match between their perceptions of whether a park existed within 750 meters (approximately $\frac{1}{2}$ mile) from home and the actual distance to the closest park in their neighborhood and that this discrepancy was largely due to low awareness of nearby parks. Likewise, a study asking community members if they lived within one half mile of park confirmed poor agreement between self-reported and objectively measured distances (Macintyre, Macdonald, & Ellaway, 2008). Lack of park awareness is specifically an issue among younger persons that can affect park visitation and park-based PA. For instance, Spotts and Stynes (1984) noted that all residents in general had little knowledge of local parks and recreation resources and that park awareness declined with distance from the park, but found that awareness was lower among younger persons than older persons. In another study of 327 adolescents, Ries and colleagues (2011) found that perceptions of greater park availability, quality, and use by family or friends were significantly associated with an increased likelihood of park use and PA.

Research also indicates that significant potential exists to increase the percentage of youth who visit and are active (at all and for longer durations) at parks. For example, a study of 8,855 direct observations across four parks in Kansas City found that only 27.7% of the observed park sample was children or teens and almost half (45.7%) of the children/ teen sample exhibited sedentary park activity levels (Besenyi, Kaczynski, Wilhelm Stanis, & Vaughan, 2013). Another study examining 2712 children (<18 years old) across 20 parks in North Carolina found that only about one third of youth engaged in walking behavior, and only 13.2% engaged in vigorous PA (Floyd et al., 2011). Likewise, another study used direct observation of 100 parks along with a survey of 897 children and 348 parents assessing variables that bring children to the park and found that parks are often underutilized by youth, but that active recreation facilities and organized programs were significant factors attracting youth to parks (Loukaitou-Sideris & Sideris, 2010).

Park programmatic and outreach efforts are frequently recommended as public health promotion strategies to increase PA participation (Godbey et al., 2005; Librett, Henderson, Godbey, & Morrow, 2007). For example, the Task Force on Community Preventive Services (2002) strongly recommended the creation or enhancement of access to places for PA (including parks and greenspace) combined with informational outreach activities for PA promotion. Likewise, Buchner and Gobster (2007) recommend a transdisciplinary approach including park programs and events as a way to increase active park visits. Further, evidence exists that park programs may be a solution to increasing levels of park awareness, visitation, and park-based PA. For example, one study of over 4,000 park users observed across 30 parks noted that organized park activities appeared to be responsible for greater park visitation (Cohen et al., 2010). Another study evaluating the effectiveness of park communication and programming strategies found that five out of seven national parks reported increased PA behavior as a result of such efforts (Hoehner et al., 2010). Similarly, research with 1,102 middle school youth found that participation in activity programs and identification of a team were positively associated with any type of park

use (Perry, Saelens, & Thompson, 2011). More recently, Park Prescriptions, a nationally supported program to strengthen the connection between health care and parks and public lands has focused on increasing awareness of parks as community PA resources (National Recreation & Park Association [NRPA], 2014a; Wheeler, Razani, & Bashir, 2014). Such programs are still gaining traction, but these and other programming initiatives have been shown to be effective at increasing park visitation and park-based PA (Martin, 2013; NRPA, 2014a).

Overall, a growing body of research indicates that community awareness of and visitation to park and recreation resources is often low and is a primary concern when trying to promote park utilization for PA. While research suggests that park programming and events are associated with increased park use and more active park users, creating and implementing effective park programs to increase PA can prove challenging and often require multiple community partnerships with a shared vision (Henderson et al., 2001).

Purpose

The purpose of this paper is to describe the development and preliminary evaluation of Park Hop, an innovative collaboration of multiple parks and recreation agencies and community partners to create an incentivized passport-style program to increase awareness, visitation, and active use of parks among youth in Greenville County, South Carolina. Better understanding how such transdisciplinary partnerships foster park appreciation and visitation can provide evidence to support the implementation of similar partnerships and programs in other communities nationwide.

Method

Setting

The pilot year of the Park Hop program was implemented and evaluated during the summer of 2013 in Greenville County, South Carolina. Encompassing 785 square miles, Greenville County is one of the fastest growing counties in South Carolina with a total population of 451,225. Over one-quarter (27%) of the County population are youth under the age of 19 (United States Census Bureau, 2013). The county is racially and ethnically diverse, with 69.7% White, 18.5% Black, 8.5% Hispanic or Latino, and 3.3% other race/ ethnicity. The median household income is \$46,115, and approximately 15.2% of county residents live below the federal poverty line.

Within Greenville County, there are 118 parks that are maintained by seven parks and recreation agencies, including City of Fountain Inn Parks and Recreation Department; City of Greenville Department of Parks and Recreation; City of Green Parks and Recreation Department; City of Mauldin Recreation Department, City of Simpsonville Parks and Recreation Department; Greenville County Parks, Recreation, and Tourism; and South Carolina State Parks (Figure 1). The six municipal and county-level departments manage anywhere from 4 to 53 parks that range from 0.1 to 293.2 acres, while Paris Mountain State Park operates over 1,500 acres. Each agency differs in the type of parks, park features and amenities, and program offerings it maintains, ranging from small neighborhood-based parks to large community parks that commonly host public events and provide diverse activities and PA opportunities.

LiveWell Greenville

The idea of the Park Hop program originated with LiveWell Greenville, a network of organizations partnering to ensure access to healthy eating and active living for every Greenville County resident. LiveWell Greenville was founded in 2009 after a need was identified in the community as a result of two collaborative community-based projects. The first study, commissioned in 2008 by the Piedmont Health Foundation and completed by Furman University, measured the rates of youth obesity in Greenville County. Results indicated that 41.1% of 3rd, 5th, 7th, and 9th grade students (n = 1,599) in Greenville



County Schools measured were overweight or obese (Piedmont Health Foundation, 2008). Out of this study, the Piedmont Health Foundation launched the Childhood Obesity Taskforce. The second initiative was Activate Upstate, a partnership between the YMCA of Greenville, Greenville Health System, and Furman University to promote healthy living in Greenville County. In 2008, these efforts combined to form Healthy Kids Healthy Greenville in order to merge all policy, systems, and environmental change efforts directed at reversing childhood obesity. Healthy Kids Healthy Greenville was rebranded as LiveWell Greenville in 2011.

Today, LiveWell Greenville's mission is to "make the healthy choice the easy choice by creating and maintaining a community that supports healthy eating and active living." This is accomplished through support of policy, systems, and environmental changes that positively influence large sectors of the community and to ensure those initiatives which promote healthy eating and active living are long term and self-sustaining. LiveWell Greenville supports collaboration of multiple sectors, partners, and organizations to share expertise, perspectives, and resources that promote healthy eating and active living through eight facilitation groups: At School, Out of School, At Work, At the Doctor, At Mealtime, At Worship, Active Transportation, and At Play. To sustain efforts in the eight facilitation groups, LiveWell Greenville utilizes a coalition model that leverages the strengths and relationships of their partner organizations.

At Play Facilitation Group

The LiveWell Greenville At Play facilitation group supports the growth and maintenance of public parks and trails systems in order to increase accessibility to safe, convenient places to be active in Greenville County. In the development stages of the At Play facilitation group, LiveWell Greenville approached the directors of the seven parks and recreation agencies in Greenville County (listed above) asking them to provide a representative to the workgroup to develop and execute a Community Action Plan (CAP) focused around the At Play facilitation group mission. The At Play facilitation group consists of a LiveWell Greenville At Play Specialist, a workgroup facilitator (volunteer from the community), a representative from each of the seven area parks and recreation agencies, and an evaluation specialist from a university partner. Some efforts to date of the At Play facilitation group have included developing a county-wide print document identifying parks, community centers, walking trails, and local community supported agriculture, and developing an online Live Well Near You tool located on the LiveWell Greenville website (http://livewellgreenville.org/livewell-near/) on the LiveWell Greenville website. Through collaboration with LiveWell Greenville, in which LiveWell acted as the neutral convener, the parks and recreation agencies began developing county wide strategies to increase PA utilizing parks and park programming.

Program Description

The Park Hop program was developed within a family recreation program planning framework (Agate, 2010) and guided by the parks and PA conceptual model (Bedimo-Rung et al., 2005). The framework for family recreation programming (Agate, 2010) highlights the importance of facilitating enjoyable family experiences, increasing awareness of recreational activities and amenities, and reducing common leisure constraints such as lack of time or satisfaction. Bedimo-Rung and colleagues' model of the relationship between parks and PA emphasizes the need to increase park visitation and park-based PA as a way to accrue numerous physical and psychological health benefits. Combining these concepts, the Park Hop program theoretical framework consists of creating fun, challenging, familyoriented recreation activities to increase park awareness, visitation, and park-based PA as a way to reduce population levels of obesity and improve health. Specifically, Park Hop is a free, summer-long scavenger hunt designed to incentivize children and their families to visit a variety of parks and recreation facilities across Greenville County and identify clues located within each park. The four overarching goals of the Park Hop program are 1) to increase park use and discovery, 2) to foster awareness and appreciation for the wealth of parks in Greenville County, 3) to increase time spent in PA during park visits, and 4) to establish an annual tradition for all to enjoy.

Park Hop was piloted during summer 2013 featuring 17 parks from the seven area parks and recreation agencies in Greenville County. Anyone wanting to participate in Park Hop could register for the program and download and print the Park Passport on the LiveWell Greenville website, pick it up at participating parks and recreation offices, or access it via the Park Hop mobile app. Each Park Passport contained one scavenger hunt clue for each of the 17 participating parks (Figure 2). Families could visit the parks anytime over the summer and answer clues at their own discretion. Youth participants who turned in partial or complete passports before the announced deadline at the end of the summer were eligible for prize drawings; the more parks visited and clues answered made participants eligible for larger prizes.

Park Hop Passport development. The Park Passport along with the Park Hop logo were developed in partnership a local design and public relations firm, LiveWell Greenville, and the seven parks and recreation agencies (Figure 2). LiveWell Greenville and the parks and recreation agencies provided Park Passport content, while the creative firm designed the Park Passport. The Park Hop logo was created as a cohesive branding strategy that could be easily recognized throughout Greenville County.

The Park Passport provided children with instructions and clues to complete the scavenger hunt. Park Hop scavenger hunt clues were strategically designed to encourage park visitation and facilitate exploration and interaction with park features in an effort to promote PA. For example, a clue in one park asked participants to follow interpretive signs to discover the name of the park's first superintendent. A clue at a different park asked



GET HOPPIN^D AND LIVEWALL CREENVILLE! In order to guide you along the way on your journey we have provided you with this passport to record the answers to your clues and track your progress on this fun summer adventure. For more information wish the website at www.parkhoporg.

P1. LINKY STORE Come discover a world of whirnsy at the Children's Garden at Linky Stone Park. where creativity is stimulated with interactive musical instruments and sculptures. In the Children's Garden, at Linky Stone Park neuto to which park feature do gue find an engraving of the "Dameto State" in the sidewak?

P 6. CONESTEE PARKs Get back to nature at Conestee Park. So close to the city this park features miles of walking trails connected to the Swamp Rabbit Trail and Conestee Nature Park. What is the name of the trail in the Conestee Nature Park?

P. CEDAR FALLS PARID Bring a picnic lunch and rediscover nature at Cedar Falls Park. This park offers walking trails where widdle such as the Carolina Wren and the Bue Heron are frequently spotted. Follow the interpretie agins and decover who operated the power plant at Cedar Falls Park in the analy SOO's. Who was it?

8. SUNSET PARC Bring your ball, bat, and some friends to Sunset Park. This park is a baseball lover's dream with a batting cage. 4 baseball/softball diamonds, a playground, and a walking trail. At Sunset Park, what two musical instruments can you find on the playground?

DON'T FORGET TO TURN IN YOUR PASSPORT OR FILL OUT OUR ONLINE SURVEY TO BE ENTERED TO WIN FUN ADVENTURE THEARED PRIZES. COMPLETE ALL CLUES AND BE ENTERED INTO A DRAWING FOR THE GRAND PRIZE! P 9. MADLDIM SPORTS CENTER: Grab your work out gear and be a guest at The Mauklin Sports Center. The facility has a wide variety of weight training and cardio equipment. 2 basketbail courts, and a rock climbing wall. At the Maudin Sports Center, how many treadmile are located inside the Sports Center?

P T1. HERITAGE PARKS Bring your favorite sporting equipment and spend the day with the family at heritage Park. Well open fields present the perfect opportunity for a pick up soccer or forotaki grave with financi. Lean bé found at Heritage park on kp the train dept station. I have in the usid and in the rain. What on I?

P 15. KID'S PLANET AT CENTURY PARS: Come explore a new world at the huge state of the art playground at Kid's Planet at Century Park. At Kid's Planet at Century Park, how many wooden bridges can you find throughout the dae golf course?

P 16. PARIS MOUNTAIN STATE PARKs Paris Mountain State Park, located minutes from downtown Greenville, dates back to the Great Depression and features 15 miles of trails for bickrs and hitters. Al Parin Mountain State Park there is a birthouse located next to the Park Center, What does the birthouse reamble?

Figure 2. Park Hop Passport

participants to complete the fitness trail and answer which station number challenged their balance. Park Passports were submitted at the end of the summer online or through the mail for the chance to win prizes based on the number of parks visited.

Park Hop launch and press event. Park Hop was launched with a press event at a local Greenville County school during the last week before summer break. The school was strategically chosen because it had received the LiveWell Greenville Healthy School Designation, which recognizes schools for excellence in PA and nutrition practices and policy. The school also had a park that was supported by both Greenville County Schools and the City of Greenville. Local print and television outlets were invited to attend the event and were sent a press release providing details of the launch event and of the Park Hop program. The school principal, physical education teacher, and a Parent Teacher Association representative spoke about the importance of childhood PA and the value of parks and provided live interview opportunities. Additionally, a LiveWell Greenville employee provided an interview that was played on the evening news detailing how to access the Park Hop website and print the Park Hop Passport.

Park Hop website and registration. The day of the press event, the Park Hop website was made available where the Park Hop passport could be downloaded and printed by registering online. The registration process captured names and email addresses that were used to provide regular communications to the participants throughout the summer. Constant Contact, an email database management system, was used to manage emails and provide communication. The website also contained regularly updated information about how to participate in the scavenger hunt.

Park Hop mobile app. In an effort to engage a variety of age groups in the Park Hop program, a mobile app was created in partnership with a local technology startup company (Figure 3). The mobile app was available for download from the iPhone and Android app store. The Park Hop app required the participant's name and email address for registration, which, similar to online registration, were captured in Constant Contact. The app contained the 17 clues from the Park Passport and incorporated a geo-locating feature, ensuring that participants be present in the park in order to unlock and answer clues.

Park Hop Passport submission. Participants were asked to submit their Park Passports when they finished the scavenger hunt or by the deadline date at the end of the summer. Participants using paper Park Hop Passports submitted their clues online or through the mail. Park Hop mobile app users' answers to clues were automatically captured



Figure 3. Park Hop Mobile App Screenshots: Home Screen, Map of Parks, and Example Clue

during the course of participation; however, since the app was in its pilot form, users were also asked to submit answers online to ensure that this information was received. All youth who submitted Park Passports were eligible for the chance to win prizes based on the number of parks visited.

Park Hop closing celebration. The pilot year of Park Hop closed with a family celebration in a local park featuring music, healthy food, a short on-site scavenger hunt, and a prize ceremony where participants could pick up their prizes. The first prize level was awarded for visiting at least 5 of the 17 parks and consisted of a LiveWell Greenville cinch bag containing an assortment of swag items including pencils, pedometers, and parks and recreation promotional materials. The second prize level was awarded for visiting at least 10 of the 17 parks and included a T-shirt featuring the Park Hop logo. The final prize level was awarded for visiting at least 15 of the 17 parks. Youth who reached this level were given a voucher to a Greenville Drive baseball game (a local minor-league baseball team) and a pass to a Greenville County waterpark. Many additional PA-themed prize drawings were awarded at the closing celebration, including camping gear, a bike, and a bike-mounted video recorder. The grand prize drawing was for an opportunity to throw the first pitch at a Greenville Drive baseball game later in the summer.

Park Hop funding. The pilot year of Park Hop was made possible through partnerships between parks and recreation agencies, local businesses, and nonprofit organizations that played a key role in the program's success. Each of the seven parks and recreation agencies contributed to funding the Park Hop program and donated the time of at least one employee to serve as the At Play facilitation group liaison to help design, promote, and implement the program. Sponsorships were sought from numerous local businesses to fund additional operational costs such as the closing event ceremony, signage, printing of passports, swag bags, Park Hop T-shirts, staffing, and other expenditures. Further, an agreement was developed with the local technology company to donate Park Hop app development and support services in the inaugural year, with the expectation that in future years, the program would pay for the development and maintenance of the official Park Hop Scavenger Hunt mobile app. Finally, more than 25 local businesses, non-profits, and other organizations donated advertising, closing ceremony prizes, and funding toward other program needs.

Participant Recruitment

The pilot year of Park Hop was targeted at elementary school-aged children in Greenville County, but was open to all youth under the age of 18 and their families. Participants were recruited via a comprehensive county-wide media campaign. The campaign included four digital billboards located in major intersections throughout the county. Park Hop also received local newspaper and television coverage through five articles and two television spots. Participants were asked to subscribe to the Park Hop twitter and Facebook pages. The twitter page had 30 unique posts, and the Facebook page made 9,542 impressions with 49 posts. Additional advertising was provided with flyers in partner with recreational facilities and signage in local parks with quick response (QR) codes linking to the Park Hop website. Furthermore, Park Hop stickers with the logo and website were distributed to 51 elementary schools serving 35,205 students in Greenville County School District. Additionally, youth could sign up during the program launch at a local school in Greenville County.

Data Collection

Data collection for the preliminary evaluation of the Park Hop program occurred from May to August 2013 in Greenville County, SC. Process and outcome evaluation data were collected via several methods, including program website analytics, Park Passports, and a post-program survey of parents of youth Park Hop participants.

Park Hop website analytics. Website analytics were collected to better understand interest and participation in the program. Website analytics were provided by the

website developer and included information regarding how many people viewed the website, downloaded a Park Passport, and emailed to ask questions or get additional information.

Park Passport. Answers to Park Passports were submitted online by each participant upon completion of the scavenger hunt or at the end of the program's duration. As shown in Figure 2, each passport contained information on the participant's age, total number of parks visited, how many parks were visited for the first time, how they usually got to the park, answers to each park scavenger hunt clue, and parent contact information, including name, phone, and email address.

Park Hop survey. Upon completion of Park Hop, a link to a program survey was e-mailed to parents of all youth who submitted Park Passports online to assess perceptions of program accessibility, enjoyment, ease of participation, park awareness and visitation, perceived changes in park enjoyment, and self-reported park-based PA (described further below). In addition, survey respondents provided a wealth of responses to open-ended questions about their experiences with, and suggestions for modifying, Park Hop. The survey was created using Survey Monkey and included an informed consent page at the beginning of the survey. Parents were asked to complete the survey for one participating child per household (if more than one, the child with the next calendar birthday).

Survey Measures

The post-program Park Hop Survey that was emailed to parents contained a number of measures used to evaluate the Park Hop program implementation and several intended outcomes. Process evaluation factors of interest included methods of information dissemination, accessibility of program information, ease of participation, and enjoyment. A single item was used to assess how parents learned about the program. Respondents were provided a list of options encompassing the primary methods used to recruit Park Hop participants as well as a word-of-mouth option and asked to check all that apply. To capture participation, parents were asked how many youth in the household participated in Park Hop. Program information accessibility was measured using a single item asking if Park Hop information was easily accessible (1=strongly disagree, 5=strongly agree). Ease of program participation was measured with two items asking how easy or difficult it was for the child to answer scavenger hunt clues (1=very difficult, 5=very easy) and about the adequacy of the number of parks included in the program (1=much too few parks, 5=much too many parks). Program enjoyment was measured with three items (1=strongly disagree, 5=strongly agree) asking the parent if the child enjoyed participating in Park Hop, if they will participate next year, and if they would recommend Park Hop to a friend. As well, parents responded to two open-ended questions regarding what the child liked and disliked about the program and asking how the program could be improved.

Outcome evaluation aligned with the program goals of increasing park awareness, visitation, park-based PA, and park enjoyment. Improvements in park awareness were measured with a single item asking how many of the 17 Park Hop parks the child visited for the first time as part of the program (check all that apply). Park visitation was measured with three items. The first asked parents to indicate which of the 17 parks their child visited as part of the Park Hop program. The survey also asked how often they visited parks in Greenville County prior to participating in Park Hop (1=less than once a year, 7=every day), and how often they plan to visit Greenville County parks after participating in Park Hop (1=less than once a year, 7=every day). Park based-PA frequency, duration, and mode were measured using modified items from the Physical Activity in Park Settings (PA-PS) questionnaire (Walker et al., 2009). Parents were asked how many days in the last month their child had visited a park, the duration (hours and minutes) of time spent in the park during the most recent visit, and the duration (hours and minutes) spent physically active in the park during the most recent visit. Additionally, information was collected regarding the types of activities their child participated in (list of 19) activities, check all that apply) and the park facilities used during their most recent park visit (list of 15 activity areas, check all that apply). Perceived park enjoyment was measured with a single item asking parents to indicate how much their child enjoys parks after participating in the Park Hop program (1=a lot less than before, 5=a lot more than before). Finally, sociodemographic information regarding the child's age, gender, height, weight, race/ethnicity, income, and zip code was also collected.

Results

Over 1,200 Park Passports were initially downloaded from the website. A total of 231 youth submitted partial or completed passports (Table 1). Youth participants ranged in age from 7 months to 16 years old (M=7.2, SD=3.5), with the majority of youth falling into the elementary school age (5-12 years) range. Youth visited a range of 3-17 parks (M=12.9, SD=2.8). Of these, 6.5% of youth visited 1-5 out of 17 program parks, 26.4% visited 6-10 parks, 48.5% visited 11-16 parks, and 18.6% visited all 17 parks. To measure potential changes in park awareness, participants were asked to specify how many Park Hop parks they visited for the first time. All but one youth (99.6%) indicated that they visited at least one park for the first time during Park Hop, while some youth visited up to 16 parks for the first time, with an average of 7.1 (SD=1.8) new parks visited per youth. Approximately 86.6% of youth usually travelled to Park Hop parks by car, with the remaining 13.4% using a mixture of transportation methods (i.e., traveling by car to some parks and biking or walking to others).

Table 1

Youth Characteristics	Total		
	n	%	
Total Sample	231	100.0%	
Age (yrs)			
Toddler/Preschool (0-4)	57	27.3%	
School Age (5-12)	131	62.7%	
Teen (13-18)	21	10.0%	
Mean	7.2	(SD 3.5)	
Park Hop Parks Visited			
1-5	15	6.5%	
6-10	61	26.4%	
11-16	112	48.5%	
All 17	43	18.6%	
Mean	12.8	(SD 2.8)	
Park Hop Parks Visited for First Tim	e		
0	1	0.4%	
1-5	70	30.3%	
6-10	126	54.5%	
11-16	34	14.7%	
All 17	0	0.0%	
Mean	7.1	(SD 1.8)	
Usual transportation to parks			
Walk	0	0.0%	
Bike	0	0.0%	
Car	181	86.6%	
Bus	0	0.0%	
Two or more methods	28	13.4%	

Park Passport Participant Characteristics

Note: Numbers in cells do not always sum to total because certain demographic data were missing for some youth.

Out of the 231 youth who submitted Park Passports, a total of 147 adults (69.0%) completed the post evaluation survey, with 143 indicating that they had children who had participated in Park Hop (Table 2). The majority of children were male (54.3%), White (92.0%), not of Hispanic or Latino origin (94.7%), and ranged in age from 2 to 16 years old (M=8.0, SD=3.0). Survey respondents ranged in household income from less than \$24,999 (3.0%) to more than \$200,000 (5.9%), with the largest percentage between \$25,000 and \$74,999 (36.6%).

Table 2

Park Hop Post Survey Participant Characteristics

		Total
	n	%
Total Post Surveys	147	100.0%
Surveys from Park Hop Participant	143	97.3%
Age (years)		
Toddler/Preschool (0-4)	18	15.4%
School Age (5-12)	92	78.6%
Teen (13-18)	7	6.0%
Mean	8.0	(SD 1.9)
Gender		
Male	63	54.3%
Female	53	45.7%
Race		
American Indian/ Alaska Native	0	0.0%
Asian	0	0.0%
Black	9	8.0%
Native Hawaiian/ Pacific Islander	0	0.0%
White	103	92.0%
Other	0	0.0%
Ethnicity		
Hispanic	6	5.3%
Non-Hispanic	107	94.7%
Household Income		
< \$25,000	3	3.0%
\$25,000-\$74,999	37	36.6%
\$75,000-\$99,999	26	25.7%
\$100,000-\$124,999	21	20.8%
>\$125,000	14	13.9%

Note: Numbers in cells do not always sum to total because certain demographic data were missing for some youth.

Results for Park Hop process evaluation are shown in Table 3. To better understand program information dissemination, respondents were asked how they heard about the program. The majority of survey respondents reported learning about Park Hop through the program website (36.7%), school (21.1%), friends/family (19.7%), and newspaper advertisements (18.4%). Website analytics confirmed that the Park Hop website was important in conveying information, as the main Park Hop page had 8,131 views during the course of the program and the Park Hop passport webpage had 1794 views. Parents indicated that, on average, 2.2 (SD=1.0) youth per household participated in Park Hop.

As a measure of accessibility of program information, 80.3% of parents reported that they agreed or strongly agreed that Park Hop information was easily accessible (M=4.3, SD=0.7). Parents were more mixed regarding the ease of answering scavenger hunt clues, with 48.0% saying they were somewhat easy to very easy, 22.4% were neutral, and 29.6% saying clues were somewhat difficult to very difficult (M=3.2, SD=1.0). However, a majority of parents (69.0%) felt the program included the right number of parks (M=3.3, SD=0.5). Regarding enjoyment of the Park Hop program, 98.3% of parents agreed or strongly agreed their child enjoyed participating in Park Hop (M=4.6, SD=0.5). Further, 96.0% of parents agreed or strongly agreed they would recommend Park Hop to a friend (M=4.64, SD=0.6), and 95.1% agreed or strongly agreed they would participate in Park Hop again next year (M=4.58, SD=0.7).

Table 3

	То	tal	
Awareness	n	%	
Website	54	36.7%	
School	31	21.1%	
Friends/Family	29	19.7%	
Newspaper	27	18.4%	
Billboard	19	12.9%	
Parks Staff	16	10.9%	
Park Hop Sticker	12	8.2%	
Flyer	2	1.4%	
Television	1	0.7%	
Participation	Mean	SD	
Participating children/household	2.2	1.0	
Accessibility ^a	Mean	SD	
Park Hop information easily accessible	4.3	0.7	
Ease of Participation	Mean	SD	
Ease of answering scavenger hunt clues ^b	3.2	1.0	
Adequacy of number of parks ^c	3.3	0.5	
Enjoyment ^a	Mean	SD	
My child enjoyed participating	4.6	0.5	
My family will participate next year	4.6	0.7	
I would recommend Park Hop to a friend	4.6	0.6	

Park Hop Post Survey Process Evaluation

^a1=strongly disagree, 5=strongly agree

^b1=very difficult, 5=very easy

°1=much too few parks, 5=much too many parks

Results for Park Hop outcome evaluation are shown in Table 4. With respect to park awareness, parent survey responses indicated that 100% of children visited at least one new park as a result of participating in the Park Hop program (M=6.7, SD=3.8). Parents also reported high levels of park visitation, with 65.6% of youth visiting at least 10 or more program parks during the course of the program (M=11.2, SD=4.5). To understand program influence on park visitation behavior, we asked parents to indicate their level of park visitation before and after participating in the Park Hop program. Prior to Park Hop, 58.0% of parents indicated their children visited parks once a month or less (M=4.3, SD=1.1). After participating in Park Hop, 63.9% of parents indicated that their children will visit parks several times a month or more (M=4.8, SD=1.0). A paired samples *t*-test revealed a significant difference in mean park visitation scores before and after program park Hop (t=-6.90, p<0.001). As well, 76.5% of parents indicated that after participating in Park Hop, their child enjoys parks in Greenville County somewhat to a lot more than before (M=4.1, SD=0.7).

Table 4

Park Hop Post Survey C	<i>Dutcome</i>	Evaluation
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Park Awareness Number of new parks visited as part of Park Hop	Mean 6.7	SD 3.8
Park Visitation ^a Number of parks visited as part of Park Hop Pofers Park Hop, how often plan did you visit	Mean 11.2	SD 4.5
Greenville County parks After Park Hop, how often will you visit Greenville	4.3	1.1
County parks	4.8	1.0
Park Enjoyment ^b How much child enjoys parks after participating in	Mean	SD
Park Hop	4.1	0.7
Park Use and Physical Activity	Mean	SD
How many days in the last month did you visit a park Duration of PA during last park visit (minutes)	6.2 87.1	4.4 43.9
Child Park-Based Activities	n	%
Spending time with friends/family	95	64.6%
Walking or hiking	90	61.2%
Picnicking	65	44.2%
Playing sports	46	31.3%
Biking	43	29.3%
Park Facilities Used by Child	n	%
Playground	110	74.8%
Trails	87	59.2%
Picnic area	67	45.6%
Open/green space	54	36.7%
Sports field	30	20.4%

^a1=less than once a year, 7=every day

^b1=a lot less than before, 5=a lot more than before

With respect to park-based PA outcomes, parents reported a range of 0 to 20 park visits within the last month (M=6.2, SD=4.4) where youth participated in an average of 87.1 minutes (SD=43.9) of PA during their most recent park visit. Parents indicated the primary activities the child participated in during park visits included spending time with friends/family (64.6%), walking or hiking (61.2%), picnicking (44.2%), playing sports (31.3%), and biking (29.3%). The primary park facility areas utilized by children during park visits included playgrounds (74.8%), trails (59.2%), picnic areas (45.6%), open/green space (36.7%), and sports fields (20.4%).

Discussion

The purpose of this paper was to describe the development and preliminary evaluation of Park Hop, an innovative collaboration of multiple parks and recreation agencies and community partners to create an incentivized passport-style program to increase awareness, visitation, and active use of parks among youth in Greenville County, South Carolina. Overall, results indicated that parents and children enjoyed participating in the pilot Park Hop program, and that the program successfully influenced park awareness, discovery and use of new parks, and park-based PA among youth in Greenville County. Nearly all participating youth visited a new park for the first time, and approximately half plan to visit parks more often after participating in the Park Hop program. Similarly, upon completion of the program, over three quarters of youth enjoyed parks more than prior to program participation, and parents self-reported nearly 1.5 hours of PA for their child during their last park visit.

One explanation of the positive findings of this program is the challenging gamelike nature of the Park Hop scavenger hunt. Previous literature suggests that fostering a connection to nature through outdoor activities that are competitive and challenging such as orienteering or geocaching can increase youth PA (Drury, Saw, Finkelstein, Wong, & Tay, 2013; Flett, Moore, Pfeiffer, Belonga, & Navarre, 2010; Garney, 2014), Likewise, the use of mobile applications for completing such activities is gaining popularity and a potential draw for youth participation (Boulos & Yang, 2013; Allen, 2013). Additionally, the Park Hop program employed participation-based incentives, which have been shown to increase youth PA in other outdoor interventions (Drury et al., 2013; Finkelstein et al., 2013). Park Hop's family-oriented approach may also be a critical component of the program. A review of the effectiveness of PA interventions in children and adolescents found that programs that encourage involvement of family or community can increase PA participation in adolescents (Van Sluijs, McMinn, & Griffin, 2007). Finally, the flexibility of the Park Hop program may be important to our findings. Park Hop families have a variety of park visitation options and the entire summer to achieve program goals. Previous research indicates that lack of time and scheduling conflicts are often barriers to participation in outdoor PA programming, and that families prefer a choice of attendance days and times (Drury et al., 2013; Pate et al., 2011). With continued collaboration among the parks and recreation agencies in Greenville County, Park Hop hopes to be a sustainable program to promote park visitation, PA, and health among all residents in the county and serves as a model for similar initiatives nationwide.

Lessons Learned

Park Hop exemplifies a successful collaboration between multiple parks and recreation agencies across Greenville County as well as an ongoing partnership with a local health coalition. Public health efforts in community settings often depend upon multiple disciplines to accomplish desired goals (Bedimo-Rung et al., 2005; Bors et al., 2009). Therefore, community partnerships have become key strategies to create local health-promoting environments and improve health behaviors and outcomes (Roussos & Fawcett, 2000). A major lesson learned regarding partnerships was that it was important to have a neutral convener, LiveWell Greenville, which helped to bring multiple agencies together and offer a collaborative venue. Similarly, collaborative partnerships require the

input and efforts of all involved organizations and promote a diversity of representatives in order to carry out the program (Roussos & Fawcett, 2000). In this setting, it was crucial for Park Hop program success that all agencies had ownership and input in the development, implementation, and evaluation of the Park Hop program. As an example, each agency chose which parks within their service areas to include on the Park Passport and developed scavenger hunt clues for those parks. Likewise, to promote a vested interest in the initiative, each agency as well as the LiveWell Greenville coalition provided support in the form of financial contributions, personnel, incentives, and other resources to ensure that Park Hop was a success. However, it was important that each parks and recreation agency "bought in" to the effort (representation as well as resources) to the degree that they wanted. For example, there was no minimum amount of financial contribution required from each agency. Such flexible partnerships allowed inclusion of all agencies who wished to be involved, regardless of budgetary constraints and may likely prove essential to the sustainability of the Park Hop program.

Despite each parks and recreation agency's contributions to the program, program resources and funding remained limited. In our experience, seeking out local sponsors as well as the formation of creative partnerships with local advertising and technology businesses was vital to the successful implementation of the Park Hop program. Further, program communications, marketing, and social media were a key component for parental awareness and involvement, which in turn was important for youth participation. This finding is consistent with a recent report by the National Recreation and Park Association discussing the importance of social media marketing for PA promotion in parks (NRPA, 2014b). Finally, mastering program technology, including the Park Hop app, proved to be a challenge during the pilot year. The Park Hop team hopes to refine the app to improve usability, broaden program reach, and increase youth engagement, especially among older audiences.

Evaluation Challenges and Limitations

Although the pilot year of the Park Hop program was well received by youth and their parents, challenges existed in the evaluation of the program. First, the limited budget for evaluation efforts restricted our ability to conduct comprehensive assessments. Likewise, the broad environment and community-level approach to the intervention made it difficult to assess how many youth and parents were exposed to media and promotional efforts of Park Hop throughout the County. Further, since the youth could complete the scavenger hunt anytime throughout the summer, it was difficult to objectively assess the individual-level PA of participating youth for such a lengthy time period. Therefore, our pilot evaluation design was post-test only with no control group, which increased threats to internal validity (Shadish, Cook, & Campbell, 2002). Yet, with limited resources, we were able to monitor website and mobile app downloads and program participation for all youth and capture almost 150 parent surveys following the program, which represented nearly two-thirds of participating youth. Nonetheless, our preliminary evaluation design made it difficult to determine differences between participants that registered and those who completed the Park Hop passport and follow up survey. Further, the cross-sectional nature made it impossible to evaluate long-term effects of the program. Future program evaluation efforts will comprise a more robust design including pre and post participant surveys, objective observations at program and control parks, assessment of nonresponse bias, and annual data collection to establish stronger internal validity and explore potential sustainability of the effects of the program on park visitation and PA.

Additionally, despite our efforts to recruit a large and diverse group of participants, our resulting sample was small and the majority of participants were male, White, grade school-aged, and from middle to upper-class income households, therefore limiting our ability to generalize our results to larger populations. Further, our preliminary model did not disaggregate results by gender or age groups. Forthcoming recruitment efforts will include diverse strategies to target youth and families of all races and income levels, while future analyses will consider potential age or gender differences related to park visitation and PA. Finally, we noted that over 80% of our sample indicated that they traveled to the parks via car. Although one of the program goals was to promote park awareness and visitation across all seven park agencies in the County, including those farther away from participant's homes, some youth may have been limited in their ability to participate due to transportation issues. Future program implementation strategies will consider ways to alleviate this issue by organizing public transportation to program parks or focusing on parks proximal to transit stops and other accessible destinations.

Practical Implications

The successful planning, implementation, and evaluation of the Park Hop program provide a multitude of professional, political, and community health implications for parks and recreation administrators. First, the foundation for this program encourages the formation of collaborative partnerships between multiple parks and recreation agencies. These partnerships promote cross-agency representation of all local parks that reinforces park awareness across a broader service area and lengthens program reach. Additionally, collaborative partnerships between parks and recreation agencies and local health agencies can strengthen the view of parks as community health resources, encourage inclusion of parks in health policy and planning, enhance political support for park agencies, and generate additional department funding opportunities (Bruton et al., 2011; Godbey, 2009; Godbey & Mowen, 2010, Hoehner et al., 2010; Mowen, Payne, Orsega-Smith, NRPA, 2014a). Further, the Park Hop program encourages the pooling of resources into a combined effort that potentially has greater impact on park promotion and community health than any one park agency might achieve alone. Second, accomplishment of Park Hop program goals, including park discovery, usage, and appreciation, has the potential to increase community support and advocacy efforts for park and recreation resources. Moreover, increased social momentum for local parks generated from the Park Hop program may in turn support the community through increased tourism and improved economic real estate values (Harnik & Crompton, 2014). Third, this family-friendly program was available free of charge throughout the entire summer and encouraged family time spent in outdoor recreation by addressing common barriers such as time, money, and knowledge/skills for participation (Reis, Thompson-Carr, & Lovelock, 2012). Fourth, results of this program indicated a significant improvement in youth PA. Therefore, we believe this program has the potential to impact community level health through the reduction of obesity and other related chronic diseases (Sallis et al., 2012; van Loon & Frank, 2011). Finally, Park Hop represents a replicable, sustainable program model that can be implemented across a variety of settings and with diverse populations to promote parks and recreation resources and public health.

Future Directions

The main goal among the community partners and the LiveWell Greenville coalition is to establish Park Hop as an annual program and event for residents throughout the County. To do so, key stakeholders will need to continue to work collaboratively to establish funding support and sponsorship that aligns with the mission, goals, and values of the parks and recreation agencies as well as the LiveWell Greenville coalition. In addition, further development of the mobile app is a priority for Park Hop as a means to actively engage participants in the program using innovative technology (Flett et al., 2010; Spikol & Milrad, 2008). As an extension of the mobile app for the Park Hop program, stakeholders are also interested in developing individual park scavenger hunts for a variety of parks as an effort to create a year-long opportunity for youth to explore Greenville County parks and increase PA. Lastly, a more rigorous evaluation of Park Hop will explore program effects according to types and features of parks visited most frequently, spatial exploration of Park Hop parks visited in relation to youth's home addresses, and pre-post program effects on youth PA and obesity levels. Among the key stakeholders of the program, a need for more parental involvement in the promotion of Park Hop has been identified, and potential solutions include involving parent-teacher associations (PTAs) in communication efforts regarding this innovative program.

Conclusion

Parks are important but underutilized community resources for promoting a variety of benefits, including increased PA. With extensive collaboration efforts among several parks and recreation agencies in one county in South Carolina, Park Hop, a scavenger hunt style park program facilitated park awareness, park visitation, and park-based PA among youth. Overall, this summer-long program and the closing celebration event provided fun opportunities for families to explore local parks and engage with multiple parks and recreation agencies across the County. With continuous expansion and improvement, such initiatives have the potential to improve use of parks and open spaces in an effort to reduce obesity amongst youth nationwide.

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