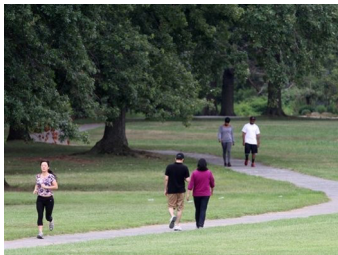


# Alliance for a Healthier New Brunswick: The Park System of New Brunswick, New Jersey

---



By Sabeha Shah; Edited by Maria B. Pellerano, MA, MBA, MPH  
RUTGERS SCHOOL OF PUBLIC HEALTH | HEALTH SYSTEMS & POLICY  
RUTGERS ROBERT WOOD JOHNSON MEDICAL SCHOOL

May 2017; (Revised September 2017)

## **Introduction to this Project:**

The New Brunswick park system consists of 16 parks, located throughout the city. The purpose of this study was to assess the recreational use of city parks by members of the local community. A careful analysis of the use of city parks can provide an opportunity to improve facilities for community members.

This research project was initiated by the Active Living Coalition of the Alliance for a Healthier New Brunswick (Alliance), which is sponsored by Rutgers Robert Wood Johnson Medical School. The Alliance includes city residents, and representatives from community-based organizations, local hospital systems, businesses, academic and educational institutions, local and regional governments, service and health organizations, and faith-based networks. In October 2017, the Active Living Coalition engaged Sabeha Shah, a candidate for a Masters of Public Health at Rutgers School of Public Health to assist with the research for this project. In January 2017, Bryonette Walls, a candidate for a bachelor of public health degree at the Rutgers Edward J. Bloustein School of Planning & Public Policy joined the project team. The Active Living Coalition met with Mss. Shah and Walls throughout the project, which was concluded in May 2017.

Goals of this project were to (1) understand how the parks are currently used and barriers that impede park usage, and (2) to propose improvements to parks to increase their usage. Stakeholders in the Active Living Coalition recommended developing a project that included interviews with “key informant” stakeholders, plus daytime observations in the parks. To develop hypotheses and inform the study design, the SPH student researcher conducted an initial review of published literature about parks, including earlier relevant reports about New Brunswick’s parks.

This initial review revealed that New Brunswick has a fair amount of park space considering the size of the city. In *The Park System of New Brunswick, New Jersey (2011)*, the Trust for Public Land (TPL) described New Brunswick’s park system as balanced but recommended that the system could be “strategically enlarged, connected and improved” (Trust for Public Land, 2011). The initial review revealed that little was known about the parks in New Brunswick in terms of exact facilities, amenities and conditions. A brochure developed by the New Brunswick Environmental Commission (2015) provided information about athletic fields, picnic areas, fitness loops, walking paths or tracks, playgrounds, tennis courts, fishing & boating facilities, basketball courts, and restrooms for sixteen spaces in New Brunswick.

The initial review also examined several review articles about parks and health (see, for example, Seltenrich, N. 2015). Research indicates that children benefit physically but also emotionally from outdoor physical activity (Seltenrich, 2015). Research has also shown a correlation between distance to a park and increased physical activity and improved mental health among

adults (Sturm and Cohen, 2014). In addition, some researchers have found in low-income areas that park conditions are associated with perceptions of safety among neighborhood residents and that there is a strong relationship between supervised and organized activities and increased park usage (Cohen, Han, Derose, Williamson, Marsh, Raaen, and McKenzie, 2016).

This study's primary hypothesis was that some New Brunswick parks are under-utilized or utilized significantly less than others. Additional hypotheses included:

- Residents adapt park facilities to the activities that suit them regardless of the park's intended design;
- Residents are more likely to use parks that have other people in them; and
- Current programming in the parks does not necessarily meet the needs of local residents.

The study was then designed to build on the work previously done by the Trust for Public Land (TPL) on New Brunswick Parks (TPL, 2011).

Our study design included three parts:

1. Review literature regarding park systems and programming in parks in vulnerable U.S. communities (not reported in this paper);
2. Develop and carry out a plan for observing and tracking park usage and conditions; and
3. Interview "key informant" stakeholders to learn more about how the parks are used and barriers and facilitators of use.

## **Methods:**

The project employed two primary data collection methods: qualitative analysis of stakeholder interviews and park observations. The Rutgers Biomedical and Health Sciences Institutional Review Board determined that the study was exempt.

### Data Collection:

#### *Stakeholder Interviews*

The Active Living Coalition created a list of stakeholders who were contacted via e-mail (see Attachment A).

During March and April 2017, researchers conducted six interviews with "key informant" community stakeholders. "Key informants" are defined as individuals who have particular knowledge about a topic, issue or setting and are willing and able to serve as sources of information for the researcher. Using an interview guide (see Attachment B), the researchers asked questions about how community members use the parks, stakeholder perceptions of the quality of the parks; what stakeholders thought would increase resident usage of parks; and what facilitators and barriers encourage or deter residents from using certain parks. All "key informant" stakeholder participants were engaged in the community and familiar with the

residents and parks in New Brunswick. All interviews were conducted anonymously in a secure location and the researcher took non-identifiable notes during each interview.

The researchers only conducted interviews with six stakeholders because the New Brunswick Park Action Plan research project also included interviews with community stakeholders and New Brunswick residents. In order not to burden participants, the Active Living Coalition and researchers decided to focus on conducting park observations.

### *Park Observations*

In coordination with the researchers, the Active Living Coalition strategically selected parks for observation based on location, proximity to neighborhoods, and park condition. The group wanted to observe a diverse group of parks, in terms of size and condition, and included several that are located in neighborhoods with high densities of vulnerable residents. During April and May 2017, one or two project researchers conducted observations in seven New Brunswick parks: Joyce Kilmer Park, Archibald Park, Buccleuch Park, Feaster Park, Recreation (Pine Street) Park, Baker Park, and Harvey Street Park. The researchers visited each park at least twice at different times of day. Five of the parks were visited with residents and/or community stakeholders who were familiar with the particular park.

Using a park observation form (see Attachment C), the researchers recorded basic information including: park name, date and time, and weather conditions. The observers made notes of the conditions of the playgrounds, fields, and facilities including: the presence of litter/graffiti; general condition of facilities such as bathrooms and water fountains; ratio of children to adults; activities taking place; and actual use of park resources. In addition, the observers noted how people arrived at the park (walk, bike, car, or public transit) and the availability of public transportation. This data was compiled into a Microsoft Excel spreadsheet for analysis.

### Analysis:

The research team each individually reviewed the data from the observations and the notes from the interviews and developed a list of themes that were supported by both the observations and the interview notes. The three-person research team met on three occasions and discussed each of the themes and the most relevant finding for each theme. The primary themes that emerged from the data included:

- security and safety;
- cleanliness and maintenance;
- infrastructure improvements and amenities;
- programming, activities and events;
- community involvement;
- park usage; and
- transportation.

## **Discussion of Findings:**

### *Security and safety:*

Security and safety were commonly mentioned during interviews, particularly a need for adequate lighting in parks; the need for regular patrolling of the parks; improved management of adverse events such as violent crimes; and concerns with drug dealing. Some of the parks in New Brunswick are located in areas that are not as densely populated and are not frequently patrolled by police. Several stakeholders reported adverse events (a fatal shooting and a gang-related murder) that occurred in two of the observed parks. Community stakeholders said they would encourage use of these parks if the parks were regularly patrolled. Stakeholders also worried about illegal activities such as drug dealing and substance use that occurred in some of the parks. Observations by the researchers in two parks confirmed the use of alcohol and marijuana smoking.

### *Cleanliness and Maintenance.*

Cleanliness was also reported as an urgent issue in parks. Stakeholders wanted to see more trash and recycling bins, cleaner bathroom facilities, and more regular maintenance of litter in all parks. Observations confirmed the need for more regular general maintenance including removing graffiti and removing litter; and addressing the poor condition of some equipment, facilities, and structures. Vandalism and graffiti was observed in almost all of the parks. Graffiti was found on fences, playgrounds, sidewalks, and trees. Litter was found in almost all parks. Some parks appeared to be maintained more regularly than others. There appeared to be a connection between the amount of litter and the number of available garbage bins. Most of the water fountains were either in disrepair or were non-functioning at the time of observations. Some parks also had damaged playground equipment, damaged hoops on basketball courts, cracked courts, broken fences, poorly maintained fields, broken benches and tables, and poorly maintained bathroom facilities.

### *Infrastructure Improvements and Amenities.*

Stakeholders recommended the addition of certain amenities that could increase park usage such as more permanent bathrooms, nature trails for walking/running/jogging, benches, and picnic tables. They also stated that improved playground facilities would increase usage, especially by children. Stakeholders thought that some parks needed more parking spaces, to ease park access. Because soccer is a very popular sport in New Brunswick, stakeholders recommended more recreational soccer fields as well as open spaces that would allow children to play other sports and games. It was clear from observations that these fields do not need to be regulation-size as the children play soccer in any space large enough to kick a ball using recycling cans as goals. Observations confirmed that some parks had abundant open space that could be divided into sports fields and open activity fields.

Observation at Recreation Park (also known as Pine Street Park), which was newly renovated, indicated that its facilities and amenities encouraged use. Many of these amenities were recommended by residents during the multiple community design charrettes held prior to the park was renovated. The aesthetic and operational features that were added to the park seem to have played a major role in its success. The skate park was well used. The playground was very modern and in excellent condition. The playground was covered with a spongy blacktop making it safe for children to play on. The community garden was covered at the time of observation, but looked promising based on the number and condition of beds. The bathroom facilities, water fountains, and sprinkler features were new and well maintained. In addition, the ground of the basketball court and parts of the park sidewalk were created with a permeable medium that absorbs rain water and allows it to seep back into the earth. This unique feature benefits both the parks and the environment. The addition of parking areas on both sides of the park brought many visitors to the park. Making renovations to other parks would likely increase usage across the entire community.

#### *Programming, Activities and Events:*

Most stakeholders interviewed wanted to see more family-oriented programming in the parks, including events with music and food and non-competitive sports and games. Stakeholders provided examples of popular events, held previously in New Brunswick parks, that offered a wide range of family activities. For example, past events with food, music, dance, and activities incorporating Hispanic culture were widely popular and attracted residents to the parks. Observations in two parks on two different occasions confirmed stakeholder perceptions. Religious events held during Easter brought many residents into the parks. After the events concluded; visitors chatted with one another, strolled, and played in the park. One stakeholder provided important feedback about the need for a more open access to certain activities, such as sports. Given the current political climate, this stakeholder felt, it would be beneficial for undocumented members of the community to have activities that did not require signing-up to participate.

#### *Community Involvement*

Stakeholders recommended better coordination and co-sponsorship of events by community organizations and local government. They suggested that by working together different organizations and entities would each bring unique ideas and perspectives to innovative programming. Stakeholders also felt that a collaboration between community organizations and government entities would result in a better distribution of resources throughout the New Brunswick park system. The stakeholders indicated that this type of community involvement would help make the parks more attractive to community residents.

#### *Park Usage*

Residents from neighboring communities often come to New Brunswick to use certain parks

because of their size, location, and amenities. Many stakeholders reported use of park facilities by members outside of the community particularly for organized sports. This often deters New Brunswick residents from using the parks if the park is overcrowded. One recommendation was to improve access to existing parks for New Brunswick residents. Certain parks, such as Boyd Park, are difficult to access because of their location and lack of parking facilities. Stakeholders indicated that safe and accessible paths to the parks would encourage local people to attend the parks' events and use the facilities on a more regular basis.

### *Transportation*

People access the parks by walking, biking, skateboarding, scooter riding, and driving. We did not observe anyone use public transportation. Buccleuch Park and Archibald Park (used by the school system) had nearby bus stops. Uneven usage of available parks seemed to be due to their proximity to certain neighborhoods, ease of access, and condition of park features.

### **Recommendations:**

The Active Living Coalition and the membership of the Alliance for a Healthier New Brunswick reviewed the data from this study and made the following recommendations:

- Develop a plan to conduct regular observations during the summer and after school in late spring and early fall in all New Brunswick parks to better understand use;
- Find a way to solicit input from children about amenities and programs they would like to see in the park;
- Promote walking clubs with community-based and faith-based organizations in the parks;
- Work with the city to:
  - Better maintain and expand trails and walks in New Brunswick parks that will enable more walking clubs to increase physical activity of residents;
  - Organize more family-oriented activities;
  - Encourage partnerships between community organizations and governmental entities to create public-private sponsorship of activities in the park; and
  - Develop a plan to better patrol the city's parks to make them feel safer to residents.

## References:

- Cohen, D., Han, B., Derose K., Williamson S., Marsh T.,<sup>1</sup> Raaen, L., and McKenzie T. (January 2016). The Paradox of Parks in Low-Income Areas: Park Use and Perceived Threats. *Environmental Behavior*, 48(1): 230-245. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4821183/>
- New Brunswick Environmental Commission. (2015). *The Parks and Gardens of New Brunswick, NJ*. New Brunswick: New Brunswick Environmental Commission. Retrieved from <http://thecityofnewbrunswick.org/wp-content/uploads/2014/04/Parks-and-Gardens-April-2015-Final-Brochure.pdf>
- Seltenrich, N. (October 2015). Just What the Doctor Ordered: Using Parks to Improve Children's Health. *Environmental Health Perspectives*, 123(10): A254-A259. Retrieved from <https://ehp.niehs.nih.gov/wp-content/uploads/123/10/ehp.123-A254.alt.pdf>
- Strum, R. & Cohen, D. (March 2014). Proximity to Urban Parks and Mental Health. *The Journal of Mental Health Policy and Economics*, 17(1):19-24. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4049158/>
- Trust for Public Land. *The Park System of New Brunswick, New Jersey: Findings and Recommendations*. (August 2011). Washington, DC: The Trust for Public Land. Retrieved from: <http://cloud.tpl.org/pubs/ccpe-NewBrunswick-web-optimized.pdf>



## **Acknowledgements:**

Oversight for this project provided by:

Faculty Advisor at Rutgers School of Public Health: Bernadette West, PhD, MA

Site Preceptor at Rutgers Robert Wood Johnson Medical School: Maria B. Pellerano, MA, MBA, MPH

Research assistance provided by:

Bryonette Walls, Bachelor's candidate in Public Health, Rutgers Edward J. Bloustein School of Planning and Public Policy

Input provided by members of the Active Living Coalition of the Alliance for a Healthier New Brunswick, Rutgers Robert Wood Johnson Medical School, including:

Vincent Rifici, Chair, Active Living Coalition and New Brunswick resident

Charles Bergman, New Brunswick Tomorrow, Esperanza Project

David Blevins, City of New Brunswick

Linda Bright, Praising Healthy Ministry, Mt. Zion AME Church

Manuel Castañeda, New Brunswick Tomorrow

Camilla Comer-Carruthers, Robert Wood Johnson University Hospital, RWJ Barnabas Health

Nancy Fischer, New Brunswick Public Schools

Susan Giordano, HIPHOP Program, Rutgers Robert Wood Johnson Medical School

Jeanne Herb, Rutgers Edward J. Bloustein School of Planning and Public Policy

Sonny Keels, Department of Recreation, City of New Brunswick

Michelle Kennedy, Rutgers Center for State Health Policy

Rita Koromi, PRAB

Teri Manes, Middlesex County Office of Health Services

Mariam Merced, Robert Wood Johnson University Hospital, RWJ Barnabas Health

Kathleen Morgan, Rutgers Cooperative Extension, Family & Community Health Sciences

Jaymie Santiago, New Brunswick Tomorrow

Jennifer Shukaitis, Rutgers Cooperative Extension, Family & Community Health Sciences

Zachary Taylor, Healthier Middlesex

**Attachment A.**



Family Medicine & Community Health  
Rutgers, The State University of New Jersey  
Medical Education Building, Room 244  
One Robert Wood Johnson Place  
New Brunswick, NJ 08901

Dear Community Stakeholder,

I am writing to request your participation in a 30 to 45-minute telephone or in-person interview to learn more about the use of parks in New Brunswick, NJ by the members of the community.

This project is part of an academic requirement for Masters of Public Health candidate, Sabeha Shah, who is currently completing her studies at the Rutgers School of Public Health. Ms. Shah will be conducting all of the interviews for this project.

This project is unfunded. The focus of this interview and objective of this project is to gain an understanding of what community stakeholders and members feel are lacking in their neighborhood parks, what they use the parks for, and what barriers may prevent optimal use of park [i.e lack of transportation, types of fields at park, safety concerns, distance from park, etc.]

Findings in the interviews Ms. Shah is conducting could become a useful to inform the New Brunswick community on new recreational programming and park facilities that will encourage New Brunswick residents to lead more active lives.

Please let me know if you are interested in being interviewed and I will ask Ms. Shah to contact you to set up appointment at your earliest convenience.

I look forward to hearing if you or another member of your team is interested and willing to participate in this important project. Your insights and expertise will certainly inform our recommendations to the City of New Brunswick.

Thank You for your consideration.

A handwritten signature in cursive script that reads "Maria B. Pellerano".

Maria B. Pellerano  
Assistant Professor  
Family Medicine and Community Health  
Rutgers Robert Wood Johnson Medical School

Version Date: 2/16/17

The logo for Rutgers University, featuring the word "RUTGERS" in a large, red, serif font, followed by the word "APPROVED" in a smaller, blue, sans-serif font. Below this, the text "THE STATE UNIVERSITY OF NEW JERSEY" is written in a very small, black, sans-serif font.

IRB ID: Pro20170000133  
Approval Date: 3/8/2017  
Expiration Date:

**Attachment B.**



Family Medicine & Community Health  
Rutgers, The State University of New Jersey  
Medical Education Building, Room 244  
One Robert Wood Johnson Place  
New Brunswick, NJ 08901

**Stakeholder Interview Guide – Assessment of New Brunswick Parks**

These questions are open-ended and designed to elicit information about perceptions of park access, usage, and programming needs from the perspective of community stakeholders. Interviewers are trained to guide the interview in a manner that is consistent with the goals / questions of the study, to probe for additional details/information from stakeholders, and to be sensitive to participants' concerns.

1. Does your organization use any park facilities for programming or events?

If yes: Can you describe some ways in which you use the parks?

Probes:

How often do you use it?

What time of year?

If they don't volunteer park name: Can you tell me which parks you use?

What attracts your organization to this park?

If no: Can you tell me why your organization does not use the parks?

Probes:

Do you know if your clients or members use the parks? If so, can you describe how they use the parks?

Do your members ever mention using parks outside of New Brunswick? If so, which ones?

2. Tell me your perceptions of New Brunswick's park facilities?

Probes:

What do you think are the most useful facilities? If so, which facilities and why? Please describe how the park facilities can be improved?

3. Can you describe any programs / events sponsored by others in the parks that your organization has participated in?

Probes:

What aspects of the park made the event successful and what aspects could have been improved?

Have your clients ever mentioned attending any events or programs in the park.

If yes, please tell me what they said about the event and the park?

Protocol Number: Pro20170000133  
PI Name: Sabeha Shah  
Protocol Title: Alliance for a Healthier New Brunswick: The Park System of New Brunswick, NJ

1

RESERVED FOR IRB STAMP  
DO NOT MODIFY THIS SPACE

**RUTGERS** APPROVED

Form Version v03012017

IRB ID: Pro20170000133  
Approval Date: 3/8/2017  
Expiration Date:

4. What programs/events would you like to see in the parks?

Probes:

Who do you think would participate in such an event / program and why?  
Have your clients or members ever mentioned programming they would like to see in the parks?

Protocol Number: Pro20170000133  
PI Name: Sabeha Shah  
Protocol Title: Alliance for a Healthier New  
Brunswick: The Park System of New  
Brunswick, NJ

2

RESERVED FOR IRB STAMP  
DO NOT MODIFY THIS SPACE

**RUTGERS** APPROVED

Form Version v03012017

IRB ID: Pro20170000133  
Approval Date: 3/8/2017  
Expiration Date:

**Attachment C.**



Family Medicine & Community Health  
 Rutgers, The State University of New Jersey  
 Medical Education Building, Room 244  
 One Robert Wood Johnson Place  
 New Brunswick, NJ 08901

**Park Observation Form**

**Park Name:** \_\_\_\_\_ **Date:** \_\_\_\_ **Time:** \_\_\_\_ **Weather Conditions:**

	Observation	N/A	Additional Comments
# children			
# adults			
Use of playground equipment (Yes/No)			
Condition of equipment (Excellent/Good/Poor)			
Litter? (Yes/No)			
Illegal Activity (alcohol or drug use/substance trafficking/other)			
Turf conditions (grass or turf/wood chips/mud/dirt)			
Standing Water			
Biking			
Skateboarding			
Roller-skating			
Walkers			
Runners			
Basketball			
Soccer			
Baseball			
Other:			

Version Date: 2/16/17

**RUTGERS** APPROVED  
THE STATE UNIVERSITY OF NEW JERSEY  
 IRB ID: Pro20170000133  
 Approval Date: 3/8/2017  
 Expiration Date: