# IPARC 2010-2011 Annual Report

**Investigating Places for Active Recreation in Communities** (IPARC) is a research initiative (laboratory) sponsored by the Department of Parks, Recreation and Tourism in the College of Natural Resources at North Carolina State University. The initiative was funded for the 4th year through the NC State Natural Resources Foundation.

**Mission**: IPARC exists to advance the science of how park, recreation and sport environments promote active living. We seek to facilitate the application of evidence-based policies and practices to enhance opportunities for physical activity in these environments to enhance quality of life.

**Vision**: IPARC aims to be the leading laboratory in the nation for providing research evidence on the contributions of parks, recreation, and sport to physical activity and an essential resource for evidence-based physical activity research from local, state, national, and international perspectives.

**Summary of 2010-2011 Based on IPARC Goals**

## Goal 1:

**To conduct research about opportunities for physical activity for all community residents through parks, recreation, schools, and other community settings.**

**Refereed Publications (Accepted and Published) in 2010-2011:**

**Bruton, C. M., Floyd, M. F., Bocarro, J. N., Henderson, K. A., Casper, J., & Kanters, M.** (in press). Physical activity and health partnerships among park and recreation departments. *Journal of Parks and Recreation Administration*.

**Casper, J. M., Bocarro, J. N., & Kanters, M. A. & Floyd, M. F.** (2011). Just let me play!! Understanding constraints that limit adolescent sport participation. *Journal of Physical Activity and Health, 8*(Suppl. 1), S32-S39.

**Casper, J., Bocarro, J. N., Kanters, M. A., & Floyd, M. F**. (2011). Measurement properties of constraints to sport participation: A psychometric examination with adolescents. *Leisure Sciences*, *33*, 1-20.

Chiou, C.-Y., **Tsai, W.-L., & Leung, Y.-F**. (2010). A GIS-dynamic segmentation approach to planning travel routes on forest trail networks in central Taiwan. *Landscape and Urban Planning, 97,* 221-228.

Edwards, M. B., **Bocarro, J. N., Kanters, M. A., & Casper, J.M**. (in press). Comparisons of participation in interscholastic and intramural sport programs in middle schools: An exploration of race and gender. *Recreation Sports Journal.*

Edwards, M. B., **Kanters, M. A., & Bocarro, J. N.** (in press). Opportunities for extracurricular physical activity in North Carolina middle schools. *Journal of Physical Activity and Health*.

**Henderson, K. A**. (2011). Physical activity among African American women: Change and ways of knowing. *Quest: Advancing Kinesiology in Higher Education, 63*(1), 73-84.

**Henderson, K. A.**, Edwards, M. B., **Casper, J., Bocarro, J., & Floyd, M**. F. (2010). Investigating places for active recreation in rural North Carolina communities. *Rural Connections, 5*(1), 33-37.

**Witmer, L., Bocarro, J.N.,** & **Henderson, K.A.** (in press). The leisure context of health behaviors for young adolescent girls. *Journal of Leisure Research*.

Spengler, J. O., **Floyd, M. F**., Maddock, J., Gobster, P. H., Norman, G., & Suau, L. (2011). Correlates of park-based physical activity among children in diverse communities: Results from an observational study in two cities. *American Journal of Health Promotion, 25*(5), e1-e9.

**Chapters in Books:**

**Bocarro, J. N., & Kanters, M.** (2010). Leisure, health, and physical activity. In G. Kassing (Eds.), *Dimensions of Leisure for Life.* Champaign, IL: Human Kinetics.

Whitt-Glover, M. & **Floyd, M.F.** (2010). Leisure and health in racial and ethnic minorities. In Payne, L., Ainsworth, B., & Godbey, G. (Eds.). *Leisure, Health, and Wellness.* State College, PA: Venture Publishing.

**Henderson, K.A.,** & Brown, W. (2010). Women, leisure, and health. In L. Payne, B. Ainsworth, & G. Godbey (Eds.) *Leisure, Health, and Wellness*. State College, PA: Venture.

**Conference Proceedings and Presentations:**

**Bocarro, J. N., Kanters, M**., Suau, L., **Casper, J. M.,** **Floyd, M. F**., & McKenzie, T. (2011, February). *Impact of school sport policy on observed physical activity in middle school children*. Active Living Research Conference. San Diego, CA.

**Bruton, C. M., Bocarro, J. N., Casper, J., Henderson, K., Kanters, M., & Floyd, M. F**., (2011, February). *Factors associated with partnership participation to increase physical activity: An examination of North Carolina park and recreation agencies*. Active Living Research Conference. San Diego, CA.

**Bruton, C. M., Bocarro, J. N., Casper, J., Henderson, K., Kanters, M., & Floyd, M. F.**, (2010, October). *Physical activity and health partnerships among park and recreation departments*. NRPA Leisure Research Symposium. Minneapolis, MN.

**Casper, J. M., Bocarro, J. N., & Kanters, M. A., & Floyd, M. F.** (2010, June). *Measurement properties of constraints to sport participation*. North American Society for Sport Management. Tampa, FL.

**Casper, J., Harrolle, M. G**., & **Palacios, I.** (2011, February). *Perceived constraints to leisure time physical activity among Latinos*. Active Living Research Conference. San Diego, CA.

**Floyd, M.F**. (2010, June). *Contributions of public parks to physical activity and health: Recent findings and research needs*. Consortium to Lower Childhood Obesity among Chicago Children Quarterly Meeting, Chicago, IL.

**Floyd, M.F**., Spengler, J.O., Maddock, J.E., Gobster, P.H., Suau, L., & Norman, G.N. (2010, May). *A multilevel analysis of effects of individual characteristics and park activity area features on children’s physical activity in neighborhood parks.* International Congress on Physical Activity and Public Health, Toronto, Canada.

**Henderson, K. A**. (2010, November). *Contributions of parks to health and active lifestyles*. VI International Parks Forum. Bogota, Columbia.

**Henderson, K. A**. (2010, November). *Promoting community-based physical activity in North Carolina: Perceptions of public park and recreation directors*. VI International Parks Forum. Bogota, Columbia.

**Henderson, K.** (2011, March). *Research about leisure, health, and physical activity*. Intermountain Research Symposium, Utah Parks and Recreation. Park City, UT.

**Henderson, K., Dern L.,** & **Wilson, B.** (2011, February). *An evaluation of North Carolina Senior Games*. Southeastern Recreation Research Conference. Boone, NC.

**Kanters, M.A. Bocarro, J.N.,** **Casper, J. M**., Suau, L. (2010, May). *Predictors of middle school sport participation: A comparison of varsity and intramural sport delivery models.* International Congress on Physical Activity and Public Health. Toronto, Canada.

Slater, S., Fitzgibbon, M., & **Floyd, M. F.** (2011, February). *Urban adolescents’ neighborhood physical activity environments*. Active Living Research Conference. San Diego, CA.

**Tsai, W.-L.,** **Y.-F. Leung &** Chiou, Y.C**.** (2011, February). *Generating trail information to promote physical activity: A GIS approach.* Southeastern Recreation Research Conference. Boone, NC.

**Goal 2:**

**To facilitate collaborative research opportunities among NC State faculty and other colleagues throughout the state and across the nation regarding active recreation in communities.**

### Grants (Funded and Unfunded) Associated with IPARC:

**Bocarro, J., Kanters,** M., & Edwards, M. (2011). *School sport policy analysis: Examining policy changes to increase the impact of after-school sports and facilities on physical activity*. Robert Wood Johnson Foundation. ($14,877)

**Bocarro, J., Kanters, M., Casper, J.** Aiken, L, & Seamons, P. (2010-2011). *Middle school sport policies and facilities research translation grant*. Robert Wood Johnson Foundation (Commissioned Analysis). ($26,824)

**Bocarro, J., Kanters, M., Siderelis, C. & Armstrong, P**. (2010-2011). *NRPA fees and charges survey project.* National Recreation and Park Association. ($18,829)

**Bocarro, J., Kanters, M**., Trogdon, J., **Devine, H, Siderelis, C**., MacKenzie, T., & **Casper, J.** (2010-2011). *Middle school sport facilities: Policies, physical activity, and cost effectiveness.* Robert Wood Johnson Foundation. ($100,000)

**Bocarro, J.N., & Floyd, M.F**. *gDitty1.5 pilot study protocol*. Hope Lab. ($53,000).

**Bocarro, J**., Nowell, B. & Macon-Harrison, L. Advancing the evidence base: A natural quasi-experiment on the importance of state sponsored network organizations for improved community health– strategic research initiative. John Rex Endowment/Blue Cross Blue Shield of North Carolina Foundation/Duke Endowment/Cone Health Foundation ($60,849--not funded)

**Bocarro, J., Kanters, M., Mahar, M**., & **Smith, C**. Combining GPS, accelerometry, and GIS for spatial analysis of children’s physical activity. Strategic Research Initiative/Eat Smart Move More. ($18,980--not funded)

**Casper, J., & Harrolle, M**. *An assessment of park and recreation awareness, use, and constraints with Latinos in Wake County, NC*. NCSU Investigating Places for Active Recreation in Community (IPARC) ($3,000)

**Floyd, M.F., Baran, P**., McHale, M., **Leung, Y., Devine, H., Henderson, K., & Anderson, D.H.** (2012). *Understanding the contribution of urban and community forests to physical activity and health*. National Urban and Community Forestry Advisory Council, ($148,753)

**Henderson, K. A., & Wilson, B**. (2010-2011). *Evaluation of North Carolina Senior Games*. (In-kind).

Moore, R.C., **Floyd, M.F.**, & Roemmich, J. (2011-2012). *PARKS FOR KIDS: Translating evidence for design, advocacy, and policymaking*. Robert Wood Johnson Foundation. ($28,244)

**Goal 3:**

**To advance the state of knowledge about evidence-based research about active recreation in communities through projects, publications, and training workshops and seminars.**

**Non-refereed Journal Publications and Reports:**

**Henderson, K. A**. Parks, recreation, and health. (in press).*Observatoire quebecois du loisir*.

**Henderson, K. A**., & Hickerson, B. D. (2011). *Physical activity and health in camps*. A briefing paper for the American Camp Association. [www.acacamps.org/research](http://www.acacamps.org/research)

**Henderson, K. &** and **Dern, L.** (in press).*Senior Games – Better than ever!* North Carolina Recreation and Parks Magazine.

Hickerson, B.D., & **Henderson, K.A.** (2010). Children’s summer camp-based physical activity. *Camping Magazine, 83*(3), 20, 22-23.

**Other Presentations:**

**Bocarro, J. N., & Floyd, M.F.** (2010, October). *The “State of Things” in promoting active recreation in communities.* National Recreation and Parks Association. Minneapolis, MN.

**Bush, K.,** Hook, J.L., & Kreeber, C. (2011, March). *Active Angels- A collaborative girls after school physical activity program.* American Alliance of Health, Physical Education, Recreation and Dance Conference. San Diego, CA.

**Bush**, **K.,** Vigo, A., Hodge, S. (2011, March). *Dietary behaviors and physical activity patterns for Hispanic adolescent females*. American Alliance of Health, Physical Education, Recreation and Dance Conference. San Diego, CA.

**Floyd, M.F., & Bocarro, J.N.** (2010, September). *IPARC – Investigating Places for Active Recreation in Communities*. Advocates for Health in Action Quarterly Meeting. Raleigh, NC.

**Henderson, K. A**. (2010, October). *Physical activity among African American women: Change and ways of knowing*. American Academy of Kinesiology and Physical Education. Williamsburg, VA.

**Henderson, K., Bocarro, J. N**., **Bruton, C**. M.,Shores, K.A., & West, S. (2010, November). *Battling obesity in NC: Connecting research to practice*. North Carolina Recreation and Parks Association. Raleigh, NC.

**Kanters, M.A.** (2011, February). *Building partnerships to establish joint-use agreements*. Co-Presenter with Jim Newkirk, Physical Activity Mangers, PAN Branch, NC Division of Public Health. Greensboro, NC.

**Kanters, M.A**. (2011, March). *Hockey is For Everyone: The benefits of hockey and organized youth sports – A call to action*. United States Congressional Briefing. Washington, DC.

Vigo-Valentin, A., **Bush, K.,** Hersman, B., Hodge, S. R., Ortiz-Castillo, E. M., & Sato, T. (2011, March).  *Culturally relevant school physical activity programs and policies.* American Alliance of Health, Physical Education, Recreation and Dance Conference. San Diego, CA.

#### Service and Media Opportunities in 2010-2011:

Academic Council, Institute for Nonprofits, Research and Engagement (**Floyd**)

Advisory Board Member, National Policy and Legal Network to Prevent Childhood Obesity--Robert Wood Johnson Foundation (**Floyd**)

Advisory Committee Member for NC Center for Physical Activity Policy Research (UNC-CH) (**Henderson**)

Advocates for Health and Action of Wake County Representative (**Smith**)

Ivanhoe News Media (August, 2010). Play younger, play longer--picked up by over 30 regional networks (**Bocarro**)

National Advisory Committee for Active Living Research--Robert Wood Johnson Foundation (**Henderson**)

National Policy and Legal Analysis Network (NPLAN) to Prevent Childhood Obesity Advisory Board (**Floyd**)

Frontiers Seminar (for doctoral students across the US) about “Leisure and Health” (**Floyd**)

North Carolina Senior Games Board of Directors (**Wilson**)

*Parenting Magazine* (July, 2010) – Physical activity advice for parents (**Bocarro**)

Hosted Eat Smart, Move More (ESMM) Research Collaborative Meeting (March, 2011)

**Student Presentations**:

**Bruton, C. M**., Floyd, M. F., Bocarro, J. N., Henderson, K. A., Casper, J., Kanters, M. (2011, March). *Factors associated with partnership participation to increase physical activity: An examination of North Carolina park and recreation agencies*. North Carolina State University Graduate Student Research Symposium. Raleigh, NC.

**Thompson, T.D., Santucci, D., Bruton, C**., & Floyd, M.F. (2011, March). *Urban fear factor: Expectancy of urban youth and intentions to visit Cuyahoga Valley National Park*. 2011 George Wright Society Conference, New Orleans, LA.

**Tsai, W.-L**. (2011, March). *A GIS-based methodology to generate trail information for promoting physical activity*. North Carolina State University Graduate Research Symposium. Raleigh, NC*.*

**MS Thesis:**

**Liana Dern:** *Children’s perceptions of aging and older adults: Grandchildren of North Carolina Senior Games Participants***.** (Directed by **Bocarro**).

**Other Accomplishments related to 2010-2011 Objectives**

* Update and maintain website that will provide information about evidence-based research that promotes physical activity through parks, recreation, schools, and other community events.

Worked with Charlie Morris to transfer current website framework to NCSU template (**Bruton**)

* Meet regularly using Brown Bag seminars to share research and ideas for addressing the mission of IPARC.

**Topics and Presenters in 2010-2011**:

October 1--Wei-Lun Tsai and Yu-Fai Leung “A GIS-Dynamic Segmentation Approach to Planning Travel Routes on Forest Trail Networks in Central Taiwan”

November 5--Robin Moore and Nilda Cosco (NCSU) “Informing Design of Childhood Places by Studying Environment-Behavior Relations: Theory and Practice”

November 29--Troy Glover (University of Waterloo) “Weed 'em and reap? A Critical Examination of the Returns of Social Capital in Community Gardens and Other Leisure Contexts”

January 21-- Pam Seamans (Executive Director, NC Alliance for Health) “State Level Obesity Policy and the Outlook for the 2011 Legislative Session”

February 14—(IPARC Contributions to ALR Conference)--“Factors Associated with Partnership Participation”—Candice Bruton, “Perceived Constraints to Leisure-time PA among Latinos”—Jonathan Casper, and “Impact of School and Sport Policy”– Jason Bocarro

March 25--Laura Aiken (Community Health Specialist—WakeMed, and Director of AHA) “Wake County Advocates for Health in Action”

* Engage students (through assistantships and seed money) in the process of research to promote active recreation.

Graduate Assistantships for:

Candice Bruton (PhD)

Liana Dern (MS)

Timia Thompson (PhD)

Non-Funded:

Keith Howard (PhD)

* Seek greater visibility on campus, in the state, and throughout the nation regarding the activities of IPARC

Note previous lists of presentations

* Seek new partners for research collaboration, grant funding, contracts, and IPARC service

Note collaborators for research grants and presentations

* Conduct IPARC project to assess status of physical activity opportunities in NC

Did not undertake.

**Plans/Objectives for 2011-2012 IPARC**

**Ongoing:**

1. Explore a formal identity for IPARC
2. Strive to be the premier unit in the state and nation addressing issues of research and evaluation regarding active recreation in community settings
3. Secure permanent IPARC Doctoral Assistantship funding (IPARC Fellowships)
4. Recruit and graduate masters and PhD students interested in physical activity issues
5. In cooperation with RRS, provide technical assistance to communities in the state interested in promoting PA
6. Identify partners throughout the university/state/country that can collaborate in research, presentations, and publications
7. Continue to develop the internal capacity to conduct research about physical activity
8. Use website as a repository for faculty work and keep site updated on a regular basis
9. Explore ways to use research to impact policy issues in local and state communities

**Specific Objectives for 2011-12:**

1. Conduct research and secure contracts to address physical activity in communities.
2. Publish 15-20 journal articles a year in scholarly publications
3. Make 15-20 presentations to research and practitioner audiences each year relative to ongoing research
4. Conduct event ( e.g., Summit, webinars) to bring together people interested in furthering the mission of IPARC
5. Develop “fact sheets” or briefing papers about current IPARC research to post on website and to share with media
6. Explore ways to increase the visibility of the IPARC research undertaken through various media outlets