# IPARC 2011-2012 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 **5th 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 2011-2012 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 (April 2011-March 2012):**

**Bocarro, J. N., Kanters, M**., Cerin, E., **Floyd, M. F., Casper**, **J**., Suau, L. J., & McKenzie, T. (2012). School sport policy and school-based physical activity environments and their association with observed physical activity in middle school children. *Health & Place, 18*, 31-38.

**Bruton, C. B., Floyd, M. F., Bocarro, J. N., Henderson, K. A., Casper, J. M., & Kanters, M**. A. (2011). Physical activity and health partnerships among park and recreation departments. *Journal of Park and Recreation Administration, 29*(2), 55-68.

Edwards, M. B., **Bocarro, J. N., Kanters, M. A**., & **Casper, J. M**. (2011). Comparisons of participation in interscholastic and intramural sport programs in middle schools: An exploration of race and gender. *Recreation Sports Journal, 35*, 157-173.

Edwards, M. B., **Kanters, M.,** & **Bocarro, J. N.** (2011). Opportunities for extracurricular physical activity in North Carolina middle schools. *Journal of Physical Activity and Health, 8*, 597-605.

Edwards, M. B., Jillcott, S. S**., Floyd, M. F**., & Moore, J. B. (2011). County-level disparities in availability of recreational resources and associations with obesity. *Journal of Park and Recreation Administration. 29*(2), 39-54.

**Floyd, M. F**. (2012). Contributions of the community stakeholders park audit tool. *American Journal of Preventive Medicine. 43*(3), 332-333.

**Henderson, K. A**. (2012). The contributions of active recreation to health and well-being: From cradle to grave. *International Leisure Review, 1*(1), 11-20.

**Henderson, K. A., Casper, J., Wilson, B**., & **Dern, L**. Behaviors, reasons, and outcomes perceived by Senior Games participants. *Journal of Parks and Recreation Administration*, *30*(1), 19-35.

**Floyd, M. F., Bocarro**, J. N., Smith, W. R., **Baran, P. K., Moore, R. C.,** Cosco, N., Edwards, M. B., Suau, L. J., & **Fang, K**. (2011). Park-based physical activity among children and adolescents. *American Journal of Preventive Medicine, 41*(3), 258-265.

Outley, C., **Bocarro, J. N**., & Boleman, C. (2011). Recreation as a component of the community youth development system. *New Directions in Youth Development, 130*, 59-72.

Sallis, J. F., **Floyd, M. F**., Rodriguez, D. A., & Saelens, B. E. (2012).The role of built environments in physical activity, obesity, and cardiovascular disease. *Circulation*, *125,* 729-737.

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), e1-9.

**Witmer, L., Bocarro, J.,** & **Henderson K. A**. (2011). Adolescent girls’ perceptions of health in a leisure context. *Journal of Leisure Research, 43*(3), 334-354.

**Articles in Press:**

**Bruton, C. M., Vurnakes, C., Martin, K., Perry, W.,** & **Henderson, K. A**. (in press). A case study of a workplace recreation-based physical activity program. *Loisir*.

**Casper, J.,** & **Harrolle, M. G**. (in press). Perceptions of constraints to leisure time physical activity among Latinos. *American Journal of Health Promotion*.

Edwards, M. B., **Bocarro, J. N.,** & **Kanters, M**. (in press). Place disparities in supportive environments for extracurricular school physical activity in North Carolina middle schools. *Youth and Society*.

Suau, L. J., **Floyd, M. F**., Spengler, J. O., Maddock, J. E., & Gobster, P. H. Energy expenditure

associated with the use of neighborhood parks in two cities. *Journal of Public Health*

*Management and Practice.*

**Refereed Conference Proceedings and Presentations:**

**Bruton, C., Vurnakes, C., Martin, K., Perry, W**., & **Henderson, K. A**. (November, 2011). *A case study of a workplace recreation-based physical activity program*. Paper presented at the NRPA Leisure Research Symposium. Atlanta, GA.

**Casper, J. M.** (June, 2011).*Strategic marketing management*. International Hunter

Education Association 2011 Annual Conference*.* Wrightsville Beach, NC.

**Casper, J. M., Bocarro, J. N.,** & **Kanters, M**. (March, 2012). *Middle school sport participation, self-concept, and school belongingness*. Poster presented at the Active Living Research 2012 Annual Conference. San Diego, CA.

**Casper, J**., **Harrolle, M. G**., & **Kelley, K**. (March, 2012). Gender differences in physical activity and park and recreation facility use among Latinos. Paper presented at the Active Living Research 2012 Annual Conference. San Diego, CA.

Edwards, M. B., **Kanters, M.,** & **Bocarro, J.** N. (March, 2012). *Simulated effects of school policy changes in after-school sports on sport participation rates among North Carolina middle school students*. Paper presented at the Active Living Research 2012 Annual Conference. San Diego, CA.

**Floyd, M. F**. (March, 2012). *The science of parks and play in low-income communities*. Teleconference Presentation, for Active Living by Design and Healthy Kids, Healthy Communities, Programs supported by the Robert Wood Johnson Foundation.

**Floyd, M. F**. (October, 2011). *Advancing social justice in health promotion: Realizing the potential of parks and open space*. Invited Lecture, Department of Health and Human Performance, 2011 Brennan & Smith Lecture Series. Texas State University, San Marcos, TX.

**Floyd, M. F., Bocarro, J. N**., Smith, W.R., **Baran, P. K., Moore, R. C**., & Cosco, N. G. (June, 2011). *Physical and social environmental factors associated with children getting to parks and being active while there: Implications for research and practice.* Paper presented at the 2011 International Society of Behavioral Nutrition and Physical Activity Annual Meeting. Melbourne, Australia.

**Floyd, M. F**., Mahar, M., **Kanters, M., Bocarro, J. N**., & Edwards, M. B. (March, 2012). *Social and environmental correlates of objectively measured physical activity and weight among middle school youth.* Poster presented at the Active Living Research 2012 Annual Conference. San Diego, CA.

**Harrolle, M. G.,** & **Casper, J**. (November, 2011). *Examination of park and recreation awareness and behaviors for Latinos***.**Presented at the National Recreation and Park Association Congress and Exposition, Atlanta, GA.

**Harrolle, M. G**., **Casper, J.,** & **Palacios, I**. (March, 2012). *Acculturation and Latino physical activity and recreational preferences*. Poster presented at the Active Living Research 2012 Annual Conference. San Diego, CA.

**Henderson, K. A**. (March, 2012). *The contributions of recreation and leisure to active living* (Keynote Address). Leisure and Recreation Association of South Africa (LARASA) in Durban, South Africa.

**Henderson, K. A., Dern, L., Casper, J.,** & **Wilson, B**. (November, 2011). *Assessing the benefits and outcomes of senior games participatio*n. Paper presented at the NRPA Leisure Research Symposium. Atlanta, GA.

**Kanters, M., Bocarro, J. N., Casper, J**., Suau, L.J., & McKenzie, T. (November, 2011). *School sport participation in middle school: A comparison of different sport delivery models*. Paper presented at the 2011 NRPA Leisure Research Symposium. Atlanta, GA.

**Kanters, M., Bocarro, J. N.,** Edwards, M.B., **Casper, J., & Floyd, M. F.** (March, 2012). *School sport participation under two school sport policies: Comparisons by race/ethnicity, gender, and socioeconomic status*. Paper presented at the Active Living Research 2012 Annual Conference. San Diego, CA.

McKenzie, T. L., Lounsbery, M., Beighle, A., **Kanters, M. A**., & Vander Mars, H. (March, 2012). *Evidence matters: Translating research findings to stakeholders and policy makers.* American Alliance for Health, Physical Education, Recreation and Dance. Boston, MA.

**Tsai, W-L., Bruton, C. M., Leung, Y-F**., McHale, M. R., **Baran, P. K.,** & **Floyd, M. F**. (November, 2011). *Exploring the relationships between urban forest characteristics and human health*. Paper presented at the Society of American Foresters, Honolulu, HI.

West, S., Shores, K., & **Bruton, C. M**.(November, 2011**)**. *Promoting physical activity through parks, recreation, and partnerships*.National Recreation and Parks Association Annual Congress, Atlanta, GA.

**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.**

**Funded Contracts & Grants:**

**Bocarro, J. N.** & **Kanters. M**. *Middle School Sport Policies and Facilities Research Translation* – Funded by Robert Wood Johnson Foundation. ($26,824)

**Bocarro, J. N., Kanters, M**., & Edwards, M. *School Sport Policy Analysis: Examining Policy Changes to Increase the Impact of After-School Sports and Facilities on Physical Activity* -- Commissioned Analysis by Robert Wood Johnson Foundation. ($14,877)

**Floyd, M. F., Baran, P**., McHale, M., **Leung, Y., Devine, H., Henderson, K., & Anderson, D. H**. *Understanding the Contribution of Urban and Community Forests to Physical Activity and Health* -- Funded by National Urban and Community Forestry Advisory Council, ($148,753)

**Kanters, M., Bocarro, J.,** Mahar, M., & McKenzie, T. *USA Hockey Physical Activity and the ADM Evaluation Study* – Funded by USA Hockey. ($37,960).

**Grants under Review:**

**Bocarro, J. N., Kanters, M. Floyd, M**., Spengler, J., Ammerman, A., McKenzie, T., Lightfoot, A., & Filardo, M. *Community-Based Partnerships for Childhood Obesity Prevention and Control: Research to Inform Policy* (NIH R21) ($401,502)

**Bocarro, J. N., Floyd, M., Kanters**, **M.,** **Smith, C**., & Lightfoot, A. *Increased availability of and improvements to places and spaces for children and youth to be physically active*—proposal to John Rex Foundation). ($240,695)

**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 Publications and Reports:**

**Bocarro, J. N. Kanters**, M., Cerin, E., **Floyd, M. F., Casper, J.**, Suau, L. J., & McKenzie, T. (2012). *Who is using school athletic facilities? Research Brief*. North Carolina State University, Department of Parks, Recreation & Tourism Management. Submitted to Active Living Research.

**Casper, J. M.** (2011). Youth team sport participation…at the heart of it all. *Sporting Good Business Magazine.*

**Casper, J.,** **Harrolle, M. G.**, **Kelley, K., & Palacios, I**. (2011). *Examination of park and recreation awareness and behaviors among Latinos*. Report prepared for El Pueblo, Inc. and Raleigh Parks and Recreation.

**Henderson, K. A**., & **Saltmarsh, A**. (2012). Moving more and eating better: The role of camps in addressing obesity. *Camping Magazine, 85*(2), 58-61.

**Kanters, M. A.,** **Bocarro, J**. **N**, & Edwards, M. **B.** (2011). *Middle school sport policies and sport participation in North Carolina*. Research brief presented to the North Carolina House Select Committee on Childhood Obesity. Raleigh, NC.

**Kanters, M., Bocarro, J. N**., & Edwards, M. B. (2011). *Shared use of school facilities* (Policy Brief). North Carolina State University, Department of Parks, Recreation & Tourism Management. Submitted to Active Living Research.

**Kanters, M., Bocarro, J. N**., & Edwards, M. B. (2011). *School sport policy analysis: Examining policy changes to increase the impact of after-school sports and facilities on physical activity*. North Carolina State University, Department of Parks, Recreation & Tourism Management. Submitted to Active Living Research.

**Kanters, M., Bocarro, J. N**., & Edwards, M. B. (2011). *School sport policies and physical activity* (Policy Brief). North Carolina State University, Department of Parks, Recreation & Tourism Management. Submitted to Active Living Research.

**Presentations/Publications in Popular Press or to the Public:**

**Bocarro et al.** NAYS video (June, 2011) – *Designing sport programs for healthy youth development.*

# Bocarro et al. CBS News (September, 2011) - *Helicopter parents make kids fat? What new study says.*

# Bocarro et al. Daily Mail (September, 2011) - *Helicopter parents who hover over their children's every move leave them at risk of obesity by preventing healthy play, study claims.*

# Bocarro et al. Time Magazine (September, 2011) - *Back off, mom. Parents who hover impede kids' activity.*

# Bocarro et al. USA Today (January, 2012) - *Ways to empower kids to take charge of their health.*

**Casper, J. M.,** & **Jeon, J**. (September, 2011). *Sport and active living*. Sport Scientific Institute,

Seoul National University. Seoul, South Korea.

**Casper, J. M.,** & **Jeon, J**. (September, 2011). *Sport and active living*. Department of Physical

Education, Inha University. Incheon, South Korea.

**Casper, J. M.,** & **Jeon, J**. (September, 2011). *Investigating places for active recreation in*

*communities (IPARC) and Professional Golf Management in the United States.* Golf Industry and Health Promotion, Daegu University, Daegu, South Korea.

**Henderson, K. A., & Wilson, B**. (February, 2012). *You’re never too old to play*. US Play Coalition, Clemson, SC.

**Henderson, K. A., & Saltmarsh, A**. (February, 2012). *Move more and eat healthy.* American Camp Association, Atlanta, GA.

**Henderson, K. A., & Saltmarsh, A**. (March, 2012). *Moving more and eating well: The role of camp in addressing childhood obesity.* Webinar presented through the American Camp Association.

**Kanters, M. A., Bocarro, J. N.,** & **Howard, K. A**. (March, 2012). *Community partnerships for physical activity: Shared-Use of public facilities*. Presentation at the Down East Partnership for Children Policy Summit. Rocky Mount, NC.

**Completed MS or PhD Theses:**

**Dern, L. B**. *Children’s perceptions of aging and older adults: Grandchildren of North Carolina Senior Games participants* (Master’s thesis). North Carolina State University, Raleigh, North Carolina – May, 2011.

**Other Contributions by IPARC:**

**Bocarro, J**. Blog for Advocates for Health in Action (Building parks to counteract hovering parents’ habits).

**Bocarro, J.** External Reviewer for Joint Use agreement document for Department of Health and Human Services.

**Floyd, M. F**. External Review for Environmental Justice Fact Sheet for the Southern Research Station, USDA Forest Service.

**Floyd, M.F**. Advisory Board, National Policy and Legal Analysis Network to Prevent Childhood Obesity.

**Henderson, K**. **A**. Reviewer for ALR Rapid Response Grants.

**Henderson, K. A**. Active Living Research Conference Program Committee.

**Henderson, K. A**. Active Living Research to Practice Award Committee.

**Henderson, K. A**. National Advisory Committee for Active Living Research (Robert Wood Johnson).

**Henderson, K. A**. North Carolina Senior Games Research Consultant.

**IPARC Team** (led by **M. Floyd**) Created lay summaries given at the Director’s conference.

**IPARC Team** (led by **M. Kanters**) Eat Smart Move More University Research Collaborative – Hosted December meeting.

**IPARC Team (**led by **M. Floyd).** Submitted a proposal for a CLUSTER HIRE for Chancellors Excellence Program.

**Accomplishments Related to 2011-2012 Objectives**

* Updated and maintained website (led by **J. Bocarro**)
* Offered Brown Bag seminars and Active Living Research Circles:

**Sept 26 -** **Invited Presentation:**

*What's In A Name? Recreation and Parks or Health*

Geoffrey Godbey, Penn State University.

**Oct 24 - Mini-Symposium:**

*School Sport Participation in Middle School: A Comparison of Different Sport Delivery Models*

**Michael Kanters, Jason Bocarro, Jonathan Casper**, Luis Suau, and Thomas McKenzie

*Assessing the Benefits and Outcomes of Senior Games Participation*

**Karla Henderson, Liana Dern, Jonathan Casper, Beth Wilson**

*Exploring the Relationship between Urban Forest Characteristics and Human Health* **Wei-Lun Tsai, Candice Bruton, Yu-Fai Leung**, Melissa R. McHale, **Perver K. Baran,** and **Myron F. Floyd**

*Examining Golfer Typology and Preference of Golf Clubs*

**Jung-Hwan Jeon**, Bong-Arm Choi, Hee Youn Kim, and Hoon Kim

*(Poster) A Case Study of a Workplace Recreation-Based Physical Activity Program*

**Candice Bruton**, Christopher Vurnakes, **Kate Martin**, Warren Perry, and **Karla Henderson**

**Feb 10** - **Research in Progress**:

*USA Hockey Physical Activity and ADM Evaluation Study*

**Michael Kanters, Jason Bocarro**, Matt Mahar, and Thom McKenzie.

*Understanding the contribution of urban and community forests to physical activity and health*

**Myron Floyd, Perver Baran**, Melissa McHale, **Yu Fai Leung, Hugh Devine, Karla Henderson**, & **Dorothy Anderson**

**March 17- Active Living Research Contributions from NCSU:**

*School Sport Participation under Two School Sport Policies: Comparisons by Race/Ethnicity, Gender, and Socioeconomic Status*

**Michael Kanters**

*Gender Differences in Physical Activity and Park and Recreation Facility Use among Latinos*, **Jonathan Casper**

**April 13 - Invited Guests:**

*Community Based Participatory Research*

Alex Lightfoot and Alice Ammerman, University of North Carolina-Chapel Hill

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

Graduate Assistantships for:

**Kelly McFadden** (MS)

Non-Funded:

**Candice Bruton** (PhD)

**Camilla Hodge** (PhD)

**Keith Howard** (PhD)

**Katherine Kelly** (PhD)

**Amy Saltmarsh** (MS)

**Wei-Lun Tsai** (PhD)

* Sought greater visibility on campus, in the state, and throughout the nation regarding the activities of IPARC (Note previous lists of presentations)
* Sought new partners for research collaboration, grant funding, contracts, and IPARC service (Note collaborators for research grants and presentations)
* Continued to explore a formal identity for IPARC (continued to focus on campus and inter-campus collaborations)
* Developed one briefing paper about current IPARC research posted on website and shared with NC Park and Recreation Directors

**Plans/Objectives for 2012-2013 IPARC**

**Ongoing Objectives:**

1. Strive to be the premier unit in the state and nation addressing issues of research and evaluation regarding active recreation in community settings
2. Continue to explore a formal identity for IPARC
3. Consider developing a boiler plate to use in branding all communication related to IPARC
4. Secure permanent IPARC Doctoral Assistantship funding (IPARC Fellowships)
5. Recruit and graduate masters and PhD students interested in physical activity issues
6. In cooperation with RRS, provide technical assistance to communities in the state interested in promoting PA
7. Identify partners throughout the university/state/country that can collaborate in research, presentations, and publications. Establish, perhaps, a formal recognition of the identified partners on the website.
8. Continue to develop the internal capacity to conduct research about physical activity. Consider using Brown Bags as also a place to share our IPARC work with invited guests.
9. Use website as a repository for faculty work and keep site updated on a regular basis. Install a “hit” counter to see how website is being used. Link to other organizations as possible. Consider use of other social media to highlight the work of IPARC.
10. Explore ways to use research to impact policy issues in local and state communities
11. Explore the possibility of conducting 2 webinars each year either with RRS or with a group such as NRPA

**Specific Objectives for 2012-13:**

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. Develop 2 “fact sheets” or briefing papers about current IPARC research to post on website and to share with media—January and July
5. Explore ways to increase the visibility of the IPARC research undertaken through various media outlets