

The First Active Living Research Conference

Growth of a Transdisciplinary Field

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Research on physical activity and health appears to be entering a fourth major era. The first phase, begun before the 1970s, was defined by physiological studies to examine the impact of different patterns of physical activity on fitness and other biological outcomes. This research led to recommendations about the amount of vigorous exercise needed to improve fitness.¹ A second phase of epidemiologic studies linking physical activity and fitness with a multitude of important physical and psychological health outcomes began in earnest in the 1970s. By the 1990s, these studies led to the recognition that physical activity is a major public health priority,²⁻⁴ and to new recommendations to engage in daily moderate intensity physical activity for public health benefits.^{4,5} A third phase of behavioral science research took shape in the 1980s with the aim of providing an evidence base to support effective promotion of physical activity. This research was reviewed at the first Cooper Institute conference in 1997,⁶ and was the basis for the physical activity intervention recommendations from the Task Force on Community Preventive Services in 2002.⁷ Research in all these traditions has progressed in quantity and quality over the years, and is making contributions to improvements in physical activity and health.

In the early 2000s, a fourth phase of physical activity research could be discerned, characterized by a focus on a broader range of activities and a primary concern for understanding and altering the policy and environmental factors that are believed to contribute substantially to the high prevalence of inactive lifestyles in industrialized nations.⁸⁻¹⁰ "Active living" is a way of life that integrates physical activity into daily routines, and the focus has been broadened from leisure-time to include physical activity for transportation and other purposes. The expanded concept of physical activity and increased emphasis on studying environmental and policy factors has required the creation of new research collaborations with disciplines and sectors of society that have not previously partnered with physical activity researchers.¹¹⁻¹³

Although environmental and policy research on active living is a new field, there is ample evidence of its vitality

and rapid growth, due in part to an appreciation of the potential to contribute to long-term, population-wide increases in physical activity and the attendant public health benefits. Recent review articles,¹⁴⁻¹⁸ books,^{19,20} and special issues of *American Journal of Health Promotion* and *American Journal of Public Health* (both in September 2003) are good indicators that the field is now firmly rooted. Part of the rapid progress can be attributed to a major investment of The Robert Wood Johnson Foundation (RWJF) in a multicomponent strategy to create "activity-friendly" communities that make it easy for people to choose to be active.⁹ Active Living Research is part of the RWJF strategy, with the mission of stimulating and supporting research that will identify environmental factors and policies that influence physical activity.

The Active Living Research Conference

The 2004 Active Living Research Conference is, we believe, the first conference devoted to this new transdisciplinary research field. The conference was designed to contribute to all three goals of Active Living Research: build the evidence base, build capacity among researchers, and translate research into policy and practice. The conference was held January 30-31, 2004, in Del Mar, California to achieve four goals:

1. Provide an opportunity for researchers from multiple fields to present and learn about the latest studies on environmental and policy issues related to physical activity.
2. Allow Active Living Research grantees to present new and continuing studies to a broad audience.
3. Build the network and capacity of researchers to conduct excellent transdisciplinary research on active living.
4. Begin to explore how current and future research can be used to shape policy decisions.

Risa Lavizzo-Mourey, president and CEO of RWJF, provided a welcoming speech that highlighted the Foundation's commitment to halting the childhood obesity epidemic. Active Living Research grantees presented plans for new studies and early results of ongoing studies in oral and poster presentations. Seven conceptual and agenda-setting papers commissioned by Active Living Research were presented. From 80 submitted abstracts, the program committee selected seven for oral presentations and 36 for posters. Keynote lectures were delivered

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by Everett Rogers on the principles for diffusing active living research findings to practice and by Daniel Stokols on transdisciplinary research collaboration. We were particularly lucky to have the privilege of hearing firsthand of Dr. Rogers's work that has impacted many diverse fields, and we were saddened to learn of his death in October 2004. An evening session on statistical methods for active living research was led by Weimo Zhu and Marlon Boarnet, and breakfast roundtables provided more opportunities for learning and networking. A mid-day break during the first day featured several options for physical activity. The conference agenda and abstracts are available at www.activelivingresearch.org.

We thank the program committee for their guidance and efforts: Anne Vernez Moudon (chair), Marlon Boarnet, Louise Masse, Katherine Kraft, Karla Henderson, Tom Schmid, and Paul Zykofsky. We appreciate Julie Weitzel and Irvin Harrison who took responsibility for the planning and execution of the conference. We acknowledge the contributions of Brad Kahn and Colleen Wadden from Pyramid Communications to the conference materials and smooth running of the conference. The conference would not have been possible without the vision and funding of the Robert Wood Johnson Foundation.

The conference was attended by 138 professionals, representing a wide range of disciplines, such as medicine, public policy, urban planning, landscape architecture, leisure sciences, and engineering. A post-meeting web-based evaluation of attendees was answered by 69% of attendees. On a 5-point scale, 97% rated the conference a "4" or "5." Of those who responded, 86% agreed ("4" or "5" on a 5-point scale) that "the meeting stimulated ideas that are likely to lead to changes in my research or practice"; 89% agreed that "I learned new concepts/ideas from another discipline that are likely to enhance my future work"; and 94% agreed that "the meeting provided an opportunity to make new contacts that might lead to future collaborations." These findings indicate the conference had practical value for most attendees.

The Active Living Research Supplement to the *American Journal of Preventive Medicine*

Authors of commissioned papers and abstracts selected for oral presentation, along with a keynote and a paper by an Active Living Research grantee, were invited to submit manuscripts for this supplement to the *American Journal of Preventive Medicine* (*AJPM*). Manuscripts were submitted soon after the conference to the guest co-editors for pre-review. The guest co-editors represented a variety of disciplines, and included Active Living Research staff James Sallis (behavioral science, physical activity) and Leslie Linton (law, public health); program chair Anne Vernez Moudon (urban planning and architecture); and Ken Powell (public health, medicine), who provided a perspective from a knowledgeable professional who was

not involved with the conference organization. The guest co-editors worked closely with editor-in-chief Kevin Patrick and managing editor Charlotte Seidman. Revised manuscripts were submitted to a panel of reviewers selected by *AJPM*. The re-revised manuscripts were again reviewed by guest co-editors before final acceptance. We thank everyone involved in the preparation of the manuscripts and production of this supplement.

The papers in this supplement add to the excellent special issues of the *American Journal of Public Health* and *American Journal of Health Promotion*, and show the rapidity with which progress is being made in this research field. Development of appropriate measures and methodologies is essential for quality research, and the paper by Gauvin et al.²¹ is an excellent contribution in this area. The papers by Frank et al.²² and Hoehner et al.²³ provide new findings on the relation of community design and physical activity that should provide useful guidance for policymakers. Both of these studies are notable for the strength of their measurement methodologies. The paper by Giles-Corti et al.²⁴ is a significant addition to knowledge about the potential influence of the characteristics of open space to physical activity. The studies by Boarnet et al.²⁵ and Evenson et al.²⁶ provide models for evaluating environmental and policy interventions that cannot be experimentally manipulated, and they illustrate the challenges of conducting such evaluations.

It is apparent that a complex web of environmental and policy factors can influence physical activity, so it is not clear how research priorities should be set, what each of the disparate fields can contribute, and how highly diverse teams of researchers can develop effective working relationships. During this early part of the life cycle of the active living research field, it is appropriate to devote substantial effort to conceptualizing how best to proceed and use the resources available. Active Living Research commissioned leaders from multiple fields to provide overviews of the roles their fields can play in the larger research effort and their recommendations for research priorities. Research on use of leisure time and the design of recreational facilities has obvious relevance for active living, and the papers by Godbey et al.²⁷ and Bedimo-Rung et al.²⁸ define the relevance of these areas of study for active living research. People spend vast amounts of time in buildings, and Zimring et al.²⁹ propose a research agenda for understanding how the design and siting of buildings can affect physical activity. Community design and land use are determined by zoning and development codes. Schilling and Linton³⁰ provide a legal history of the public health roots of zoning, with some recommendations to guide reform of zoning codes. Sturm³¹ outlines several pathways of economic influence on physical activity and proposes a research agenda that could identify economic policies more consistent with active living. Childhood obesity has become a societal concern³² with clear relevance for active living research, and Robinson

and Sirard³³ propose priorities for research that may speed the implementation of effective solutions.

All investigative teams engaged in active living research are, by definition, working with collaborators from unfamiliar fields. These transdisciplinary teams are developing concepts, methods, and findings that would not be possible within any given field. However, there are challenges in transdisciplinary research, effort needs to be devoted to developing effective working relationships, and few guidelines exist. The paper by Stokols et al.³⁴ provides a valuable service to all investigators in this field by offering a conceptual model of transdisciplinary research and lessons for active living investigators drawn from their studies of tobacco research centers.

The set of papers in this supplement is rich in innovative concepts and methods as well as stimulating new data. Readers with various backgrounds are likely to draw different lessons from these papers. Vernez Moudon³⁵ discusses the implications for an urban planner, and Powell³⁶ illustrates how these papers can inform and possibly help transform the practice of public health. Richard Jackson reveals how these papers document and elaborate common sense truths.³⁷ We hope that you will draw knowledge and inspiration from these papers that will improve your ability to be an effective researcher, advocate, or policymaker. The experience of organizing the 2004 Active Living Research Conference and this *American Journal of Preventive Medicine* supplement was positive enough to encourage us to replicate these successes. The second conference will be held in February 2005 and a supplement to *Journal of Physical Activity and Health* is planned.

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