



## The Impact of the Physical Activity Policy Research Network

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**Introduction:** Lack of physical activity is one of the greatest challenges of the 21st century. The Physical Activity Policy Research Network (PAPRN) is a thematic network established in 2004 to identify determinants, implementation, and outcomes of policies that are effective in increasing physical activity. The purpose of this study is to describe the products of PAPRN and make recommendations for future research and best practices.

**Methods:** A mixed methods approach was used to obtain both quantitative and qualitative data on the network. First, in 2014, PAPRN's dissemination products from 2004 to 2014 were extracted and reviewed, including 57 publications and 56 presentations. Next, semi-structured qualitative interviews were conducted with 25 key network participants from 17 locations around the U.S. The transcripts were transcribed and coded.

**Results:** The results of the interviews indicated that the research network addressed several components of its mission, including the identification of physical activity policies, determinants of these policies, and the process of policy implementation. However, research focusing on physical activity policy outcomes was limited. Best practices included collaboration between researchers and practitioners and involvement of practitioners in research design, data collection, and dissemination of results.

**Conclusions:** PAPRN is an example of a productive research network and has contributed to both the process and content of physical activity policy research over the past decade. Future research should emphasize physical activity policy outcomes. Additionally, increased partnerships with practitioners for collaborative, cross-sectoral physical activity policy research should be developed.

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### INTRODUCTION

In spite of known health benefits of physical activity (PA),<sup>1–4</sup> only 50% of U.S. adults are sufficiently active.<sup>5</sup> Policy interventions are recommended to improve and sustain population behavioral outcomes and have been recently applied to PA.<sup>6,7</sup> The Framework depicted in Figure 1 was the impetus for creating the Physical Activity Policy Research Network (PAPRN),<sup>8</sup> a Special Interest Project by the Centers for Disease Control and Prevention (CDC) Prevention Research Centers Program. The mission of PAPRN was to identify policies and determinants, implementation, and outcomes of those policies that are effective in increasing PA. The sector, scale, and policy research components of the Framework guided the mission and work of PAPRN. Each year, a list of potential projects was evaluated by Framework fit, feasibility, and priority. Working groups

were then assembled to implement the selected network projects. PAPRN has proven to be a productive and efficient model for research networks. The objectives of this paper are to (1) evaluate the alignment of the PAPRN projects with

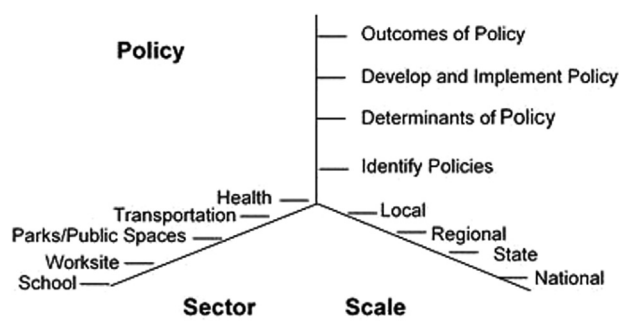
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**Figure 1.** Physical activity policy research framework.

the Framework and (2) explore network research best practices.

## METHODS

Quantitative and qualitative data collection was used for this assessment. Dissemination products from 2004 to 2014 were compiled for systematic analysis. Additionally, researchers conducted interviews with key informants, defined as network members who participated in at least one workgroup and regularly attended monthly conference calls in the previous year.

The interview guide was developed to capture network experience, perception of projects in reference to its mission, and suggestions for increased impact. The IRB of Washington University in St. Louis approved this study.

The interviews were digitally recorded, transcribed, and analyzed with NVivo, version 10.0, qualitative software. A coding tool was developed, tested, and revised before complete coding.<sup>9</sup> The coded documents were analyzed for emergent themes and concepts.

## RESULTS

Dissemination products were evaluated on scale, sector, and policy level to determine alignment with the Framework. As of February 2014, the network produced 57 publications, including 30 peer-reviewed articles, and 56 presentations, including five webinars and a TV interview. Products are available on the PAPRN website: [paprn.wustl.edu](http://paprn.wustl.edu). Analysis shows that the PAPRN effectively addressed determinants and implementation of policies, but has engaged in limited research on policy outcomes (Table 1).

All invited key informants (N=25) participated in this study, for a response rate of 100%. Participants from 17 U.S. locations varied in tenure of network participation, ranging from 2 to 10 years, with a 6-year average. Fourteen participants were not receiving funding as a PAPRN collaborating center, yet were active members. Two participants began involvement as student members, 21 joined as researchers, and two classified themselves as practitioners.

When asked if the PAPRN was successful in addressing the four components of policy research outlined in the Framework and mission, participants indicated the need to focus more on implementation of policies, and outcomes of PA policies: “I’d [also] love to see some outcomes research...to say something like this physical activity or physical education policy increases physical activity, or building a sidewalk increases walking by this much. Something concrete, because I don’t think we have

**Table 1.** Scale, Policy Level, and Sector of Products by the Physical Activity Policy Research Network (PAPRN), 2004–2014<sup>a</sup>

	Articles (n=57)		Presentations (n=56)	
	Journal articles	Non-scientific publications	In-person	Media
Number <sup>b</sup>	30	27	50	6
Scale				
Local	13	15	19	2
Regional	7	10	12	3
State	13	13	28	4
National	5	1	15	5
Policy				
Identify policies	4	3	10	3
Determinants of policies	14	9	20	3
Implementation of policies	11	14	13	3
Outcomes of policies	1	2	8	3
Sector				
Health	5	5	17	3
Transportation	20	15	33	3
Parks/public Spaces	17	17	32	4
Worksite	8	6	20	3
School	16	13	29	5

<sup>a</sup>PAPRN materials can be found at [paprn.wustl.edu](http://paprn.wustl.edu).

<sup>b</sup>Numbers may not equal total N as a result of overlap among scales, policies, and sectors.

that now, and I think that would really add to the credibility of what we're doing."

The PAPRN mission calls for transdisciplinary collaboration that crosses sectors (e.g., schools, city planning, transportation). Participants reported that many active participants are in academia: "We tend to mostly use physical activity researchers." Others noted gaps in collaboration partners such as architecture and transportation.

According to participants, one of the best practices of PAPRN was its collaborative approach. PAPRN capitalized on connecting research through network efforts: "I think the overarching nature of the PAPRN, taking a broad approach, not just doing individual pieces of research but making connections over states and over the nation and tying policies thematically over broad areas."

In addition to cross-state collaboration, participants were also encouraged to engage with local practitioners and researchers: "I feel like it is really is the true meaning of the network... [W]e have a national reach but then we're also able to develop relationships within the state or the region where we're working. The projects have been very collaborative, allowing us to accomplish more than we would on our own."

Participants stated that the network encouraged collaboration between practitioners and researchers through inclusion of practitioners in network calls and strategic planning decisions: "I have my MPH, not a doctorate, and this work again allows me to work at the intersection of research and practice, which is my strongest interest. I will not be going back for a doctorate, but I feel like there's a way—PAPRN offers a way for practitioners to influence research that's being developed."

Practitioners also informed dissemination products, particularly tools, webinars, and policy briefs: "There's been a huge emphasis on policy briefs and research reports and those kinds of—all the documents that make outcomes more tangible and useable for practitioners. And I think there's been a lot of overt connections with practitioners, through the practitioner's society, really engaging those folks as members in the group."

A final best practice of the network is its efficiency—both in terms of resource management and production: "The work that's being done by PAPRN is incredibly efficient in terms of the manner in which resources are allocated. And also in many ways more deeply beneficial because of the more direct application to practice."

## DISCUSSION

This evaluation informs recommendations useful for both PA policy research and network collaboration. It leads to several recommendations.

### Recommendation 1: Increase Physical Activity Policy Outcome Studies

The PAPRN has built a basis for PA policy research by conducting studies that identify existing policies, describe related determinants, and to a lesser extent, explore policy implementation. Outcome studies are lacking. The National Physical Activity Plan identifies the need for more outcomes-based research to provide evidence on the effectiveness of policy approaches for increasing population PA.<sup>10</sup> Research networks such as PAPRN are well suited to conduct outcome studies and can broaden the impact of their results.

### Recommendation 2: Enhance Collaborative Physical Activity Policy Research

Results of this evaluation show aggregate benefits of collaborative PAPRN research. Both network members and the practice community gained access to innovative research published in a variety of ways, and developed vital connections with others working in PA policy. Enhancing multistate collaborators with access to varied populations will augment the generalizability of research findings and contribute to external validity of policy interventions.

### Recommendation 3: Enhance Researcher-Practitioner Collaborations

Although efforts were made to engage practitioners, most PAPRN projects remained researcher dominated. Increased efforts for practitioner participation are needed.<sup>11</sup> Their engagement should exist throughout the research process from planning to evaluation and is paramount for evidence-based and impactful practice.

## CONCLUSIONS

Over the past decade, PAPRN has been a highly productive CDC-funded research network contributing to both the process and content of PA policy research.<sup>12,13</sup> This approach can inform future research network evaluations that extend beyond PA policy. Increased collaboration among researchers studying the same topic can help build a more cohesive body of evidence. Broad collaboration can also increase generalizability and applicability of findings as a network of researchers with access to different populations and environments can add tremendous variability. Also, many areas of study within public health could benefit from better research-to-practice connections. Enhancing practitioner involvement in research networks may better develop these connections.

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