

Commentary

**Building Evidence, Building Community:
The Physical Activity Policy Research and Evaluation Network (PAPREN)**

Stephenie C. Lemon^{1,2}, Karin Valentine Goins^{1,2}, Emily N. Ussery^{2,3}, Kenneth M. Rose^{2,3}, and Jamie F. Chiqui^{2,4}

¹Division of Preventive and Behavioral Medicine, Department of Population and Quantitative Health Sciences, University of Massachusetts Medical School, Worcester, Massachusetts, U.S.A.

²Physical Activity Policy Research and Evaluation Network

³Division of Nutrition, Physical Activity and Obesity, Centers for Disease Control and Prevention, Atlanta, Georgia, U.S.A.

⁴Division of Health Policy and Administration, School of Public Health, University of Illinois Chicago, Chicago, Illinois, U.S.A.

Keywords: physical activity, built environment, transportation, land use

Background

Regular physical activity is an essential action people can take to improve their health (U.S. Department of Health and Human Services, 2018). Despite well-established benefits, only 1 in 4 U.S. adults meet the combined aerobic and muscle-strengthening physical activity guidelines (Centers for Disease Control and Prevention). The built environment, defined as the physical makeup of where people live, learn, work, and play, can support or inhibit physical activity. The Community Preventive Services Task Force (CPSTF) recommends built environment strategies that combine new or improved pedestrian, bicycle, or transit transportation systems (i.e., activity-friendly routes) with land use components (i.e., connecting everyday destinations) (Community Preventive Services Task Force, 2016). Active People, Healthy NationSM is a national initiative led by the Centers for Disease Control and Prevention (CDC) to help 27 million Americans become more physically active by 2027 (Fulton et al., 2018). To reach this goal, states and communities can implement strategies for increasing physical activity (Schmid et al., 2021) across sectors and settings. Each strategy can be designed to ensure equitable access to opportunities for physical activity. However, implementation of physical activity-supportive policies across the United States remains low. The National Complete Streets Coalition reports that only 1,600 jurisdictions (mainly cities) have adopted Complete Streets policies (Smart Growth America); this is a fraction of all U.S. jurisdictions, and the quality of policies varies. There remains a need for applied research to translate knowledge into practice for implementing evidence-based policies to increase physical activity. Best practices that inform the implementation of these strategies are also needed to support communities and states.

Since 2004, CDC has supported thematic research networks focused on physical activity policy as part of the Prevention Research Centers (PRC) program. Between 2004 and 2019, CDC funded the Physical Activity Policy Research Network (PAPRN) (Manteiga et al., 2017) and Physical Activity Policy Research Network Plus (PAPRN+) (Pollack, Schmid, Wilson, & Schulman, 2016). For both networks, a coordinating center and five collaborating centers were funded to conduct independent projects with the goal of establishing evidence regarding policies that influence opportunities for physical activity across multiple sectors. The networks also supported nonfunded work groups that included individuals from multiple institutions. PAPRN+ increased emphasis on research to translate evidence-based policy into practice.

The Physical Activity Policy Research and Evaluation Network (PAPREN), established in 2019, represents the next generation of CDC's physical activity policy research network. PAPREN is co-led by researchers at the University of Massachusetts Medical School and the University of Illinois Chicago School of Public Health, which comprise the PAPREN Coordinating Center. CDC's Division of Nutrition, Physical Activity, and Obesity (DNPAO) funds PAPREN, via the Coordinating Center, to

research and evaluate local, state, and national-level policy approaches to increase physical activity.

PAPREN Overview

PAPREN's focus emphasizes DNPAO's priority on the built environment. With a vision of *Active people in active communities, supported by equitable, sustainable policies and practices*, PAPREN prioritizes CPSTF recommendations to increase physical activity through built environment approaches that create activity-friendly routes to everyday destinations. Health equity is a guiding principle integrated into all PAPREN activities. PAPREN is a key research partner of CDC's Active People, Healthy Nation initiative, facilitating collaboration across sectors and providing evidence and tools that states and communities can use to implement policy approaches to promote physical activity (Fulton et al., 2018).

Due to PAPREN's emphasis on the built environment, priority has been placed on building a multi-sectoral network. Like previous networks, PAPREN includes members from disciplines that traditionally address physical activity, including public health, kinesiology, and behavioral sciences. PAPREN has intentionally extended membership to also include disciplines such as planning, transportation, and engineering, with whom cross-sector collaboration is required to accomplish built environment changes. The network welcomes researchers, practitioners, policy makers, government staff, and others.

PAPREN supports activities in three areas: (a) growing professional capacity and collaboration among multi-sectoral researchers and practitioners; (b) building new research evidence; and (c) supporting translation of research to practice. PAPREN-affiliated research is intended to fill research to practice gaps in two main areas: (a) evaluation research that demonstrates the long-term impact of policies on physical activity and related health outcomes; and (b) implementation research that identifies evidence-based strategies that improve practitioner capabilities to engage in policy processes and result in greater translation to practice.

Organizational Structure

PAPREN has a multilayered leadership structure. The executive committee comprises the PAPREN Coordinating Center team, and a CDC DNPAO liaison and is responsible for overall and day-to-day decision-making and operations of the network. A 16-member steering committee includes the executive committee plus all work group (described below) co-chairs and is charged with leading governance, growth strategies, and activities. The five-member external advisory committee includes experts who represent transportation, land use, and public health and have experience in both research and practice. Its charge is to ensure that PAPREN's work is relevant and timely.

PAPREN's volunteer membership is open to anyone whose interests align with the network's. The membership structure has two tiers. General members receive all

PAPREN communications and participate in network events. Affiliate members additionally are active in at least one work group and participate in projects and product development. Anyone interested in joining PAPREN can sign up at www.papren.org. As of May 15, 2021, there are over 550 PAPREN members. PAPREN also has organizational members that include Active People, Healthy Nation partners and other organizations with aligned missions.

Network Activities

PAPREN supports network capacity building and engagement through a robust slate of events and communications strategies. The bimonthly grand rounds webinar series features high-profile speakers who relate their work to physical activity policy. For example, a recent speaker addressed the impact of systemic racism on physical activity opportunities among Black Americans, while another presented work on structural, scalable, and sustainable "in situ" place-based changes demonstrated to achieve reductions in gun violence and other positive outcomes. On alternate months, network meetings are convened via videoconference to keep members apprised of activities of PAPREN, the CDC, and Active People, Healthy Nation partners. The meetings also feature invited speakers who present timely, relevant initiatives or resources and provide opportunities for members to share information and converse.

Work Groups

PAPREN members may join one or more member-initiated work groups. Currently, PAPREN has five domain-specific work groups focused on transportation policy and planning, rural active living, parks and greenspace, school wellness, and worksite wellness. A sixth, cross-cutting work group focuses on equity and resilience issues across all PAPREN interest areas. Each work group is led by co-chairs (who comprise the PAPREN steering committee noted above) and supported by a fellow who is typically a graduate student, postdoctoral fellow, or junior faculty member. The fellow helps support the day-to-day operation of the work groups and typically leads a work group project.

The PAPREN work groups provide an opportunity for members to network and exchange information around common areas of interest. Monthly meetings often include guest presentations. Members may volunteer to work on small-scale work group projects mainly focused on built environment-related issues and targeted for use by decision-makers and practitioners, including CDC's State Physical Activity and Nutrition (SPAN), High Obesity Programs (HOP), and the Racial and Ethnic Approaches to Community Health (REACH) program recipients. As examples, the transportation policy and planning work group is currently exploring strategies that communities engage in to maintain and fund sidewalks and will use the insights gleaned to correlate relationships to health outcomes and develop best practices, and the equity and resilience work group is conducting a project to characterize and assess anti-displacement strategies that

have been proposed, implemented, or evaluated in the United States and to provide examples for use by SPAN/HOP/REACH recipients and jurisdictions nationwide. Some projects also generate pilot data for grant submissions to funding agencies.

Communications

PAPREN's branding was designed to coordinate with Active People, Healthy Nation. The PAPREN website, www.papren.org, provides information about the network and serves as a clearinghouse for PAPREN-generated products, tools, and dissemination materials. The website is a key vehicle for new members to learn about the network and for all members to stay abreast of network and work group activities. A monthly newsletter, *The PAPREN Post*, is disseminated to network members to provide information on network-related activities, announcements, and resources. The PAPREN blog shares information on topics related to physical activity and built environment, network-related activities, and summaries of PAPREN projects. PAPREN personnel and guest authors contribute posts. Twitter (@PAPREN1) is used to promote PAPREN events and products, amplify member and partner announcements, and monitor developments around physical activity, built environment, and equity.

Summary

As a partner in CDC's Active People, Healthy Nation initiative, PAPREN convenes people from across the United States and beyond who are committed to improving opportunities for physical activity and health through built environment changes. Uniquely positioned at the intersection of research and practice, this vibrant network is building capacity and collaborations across multiple disciplines and filling research-to-practice gaps.

Author Contributions

Conceptualization: SCL, KVG, ENU, KMR, JFC;
Writing—Original Draft: SCL, KVG, ENU, JFC;
Writing—Review and Editing: SCL, KVG, ENU, KMR, JFC;
Funding Acquisition: SCL, KVG, JFC

Acknowledgments

This work is a product of the Physical Activity Policy Research and Evaluation Network (PAPREN). PAPREN is supported by Cooperative Agreement Number U48DP006381 from the Centers for Disease Control and Prevention and is a thematic network of the Prevention Research Center network. The findings and conclusions in this paper are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Conflicts of Interest

The authors have no conflicts of interest to disclose.

Corresponding Author:

Stephenie C. Lemon, Ph.D.
Division of Preventive and Behavioral Medicine

Department of Population and Quantitative Health Sciences
University of Massachusetts Medical School
55 Lake Avenue North
Worcester, MA 01655
Email: Stephenie.Lemon@umassmed.edu
Phone: 508-856-4098

License

This work is [licensed](#) under a [Creative Commons Attribution-Noncommercial 4.0 License](#).

References

- Centers for Disease Control and Prevention. (n.d.) Trends in meeting the 2008 physical activity guidelines, 2008–2018. <https://www.cdc.gov/physicalactivity/downloads/trends-in-the-prevalence-of-physical-activity-508.pdf>
- Community Preventive Services Task Force. (2016). Physical activity: Built environment approaches combining transportation system interventions with land use and environmental design. <https://www.thecommunityguide.org/findings/physical-activity-built-environment-approaches>
- Fulton, J. E., Buchner, D. M., Carlson, S. A., Borbely, D., Rose, K. M., O'Connor, A. E., Gunn, J.P., & Petersen, R. (2018). CDC's Active People, Healthy NationSM: Creating an active America, together. *Journal of Physical Activity and Health, 15*(7), 469–473. doi:10.1123/jpah.2018-0249
- Manteiga, A. M., Eyler, A. A., Valko, C., Brownson, R. C., Evenson, K. R., & Schmid, T. (2017). The impact of the Physical Activity Policy Research Network. *American Journal of Preventive Medicine, 52*(3S3), S224–S227. doi:10.1016/j.amepre.2016.10.018
- Pollack, K. M., Schmid, T. L., Wilson, A. L., & Schulman, E. (2016). Advancing translation and dissemination research and practice through the Physical Activity Policy Research Network Plus. *Environment and Behavior, 48*(1), 266–272. doi:10.1177/0013916515616990
- Schmid, T. L., Fulton, J. E., McMahon, J. M., Devlin, H. M., Rose, K. M., & Petersen, R. (2021). Delivering physical activity strategies that work: Active People, Healthy NationSM. *Journal of Physical Activity and Health, 18*(4), 352–356. doi:10.1123/jpah.2020-0656
- Smart Growth America. Complete Streets Policies Nationwide—Policy Inventory. (n.d.) <https://smartgrowthamerica.org/program/national-complete-streets-coalition/publications/policy-development/policy-atlas/>
- U.S. Department of Health and Human Services. (2018). *Physical activity guidelines for Americans, 2nd edition*. <https://health.gov/our-work/physical-activity/current-guidelines>