Strengths, Challenges, and Opportunities for Physical Activity Promotion in the Century-old National Cooperative Extension System

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The need for physical activity promotion is ubiquitous, and offering physical activity interventions in community settings may reach people where they live, work, and play. Reaching people and providing evidence-based programming is exactly what the Cooperative Extension System has accomplished over the last century. In 2014, federal policy brought physical activity promotion into the mission of Extension. Although this policy marks the beginning of concerted efforts for physical activity promotion, several states have had strong success in this area. Borrowing from these efforts, this paper reports strengths, challenges, and opportunities for physical activity promotion in Extension.

Keywords: Exercise, community-based, policy response, dissemination, and implementation

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Introduction

Everett Rogers’ diffusion of innovation (DOI) theory (Rogers, 1962) is the foundation of many dissemination and implementation theories, models, and frameworks (Estabrooks et al., 2018; Tabak et al., 2012). It was developed to characterize the spread of information and knowledge through social systems, and much of the early work was conducted within the National Cooperative Extension System (herein: Extension).

Extension is associated with land grant universities in every state and territory in the U.S. (Franz & Townson, 2008). This system’s infrastructure employs university-based specialists who work with county-based field professionals (herein: agents), staff, or volunteers who, in turn, provide services to communities (Franz & Townson, 2008). The Extension model has the potential to facilitate broad reach into populations that may benefit most from the application of evidence-based interventions, has credibility within the community, and aligns evidence-based services with community needs (Balis, Strayer, et al., 2019; Dunifon et al., 2004; Fetsch et al., 2012; Wilson et al., 2018). Many successes of this model have been noted over the last 100 years (Blair et al., 2013; Block et al., 2004; Bull et al., 2004; Buscemi et al., 2014; Cases et al., 2016; Dunn et al., 2006; Dwyer et al., 2017; Estabrooks et al., 2008; Folta et al., 2015; Freedman et al., 2014; Janicke et al., 2013; Kaiser et al., 2015; Kaufman et al., 2017; MacKenzie Whetstone et al., 2011; McNamara & Gunter, 2012; Phillips et al., 2013; Reed et al., 2016). Much of this success has been noted in agriculture (which is unsurprising as Extension is funded through the United States Department of Agriculture [USDA]), but new attention has been paid to the health promotion initiatives within the system (Balis & Harden, 2019; Ball et al., 2013; Dzewaltowski et al., 2004; Harden et al., 2018; Manore et al., 2017; Peña-Purcell et al., 2012).

This attention is, in part, due to the release of the Extension National Framework for Health and Wellness in 2014, which stated that “the same system of Extension can do for the nation’s health what it did for American agriculture” (Braun et al., 2014), including ‘physical activity’ as part of the NIFA strategic plan for the first time (Farm Service Agency, 2014). This has provided opportunities for specialists to foster partnerships with healthcare, other public health entities, or academic researchers to promote physical activity (Braun et al., 2014; Harden et al., 2018).

As with most new initiatives, physical activity has been a less prominent focus within the system (Braun et al., 2014; Harden et al., 2016, 2018). In this report, we provide our perspectives of working within the system; specific state-based successes and challenges encountered when applying the current Extension model to physical activity promotion; and suggestions for improved dissemination within the system that was the birthplace of DOI. While our shared experiences are not comprehensive of all physical activity promotion in Extension, we strategically teamed together to ensure that these examples span the nation and over 20 years of work as physical activity scholarly practitioners.
Synopsis of Current Approach to Physical Activity Promotion:
Examples of Strengths and Successes

There are antecedents and facilitators for successful physical activity promotion at the national, state, multi-county, and county levels within Extension (see Figure 1 for examples) and many cases where Extension professionals have leveraged their expertise and relationships to achieve statewide success.

Figure 1. Multi-level Physical Activity Promotion Strategies for the Cooperative Extension System

<table>
<thead>
<tr>
<th>Policy, Mandates, Federal funds</th>
<th>• Inclusion of physical activity objectives and outcomes in Farm Bill and other relevant policies</th>
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<tbody>
<tr>
<td>Administrative support, Strategic plans</td>
<td>• Physical activity as part of performance evaluations or impact statements</td>
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<tr>
<td>Dedicated and enthusiastic exercise specialists</td>
<td>• Well-informed and—connected exercise specialists who provide updated, relevant, and evidence-based information to agents</td>
</tr>
<tr>
<td>Motivated and informed county agents</td>
<td>• Agents attend training, seek partnerships, identify community needs and promote physical activity</td>
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As the first example, two decades ago, Kansas State University was one of the first institutions in the U.S. to link scholars in physical activity and public health with appointments in the Extension system. The Kansas State Agricultural Experiment Station and Cooperative Extension System (K-State Research and Extension) established an integrated research-practice Community Health Institute (CHI). The CHI facilitated system-level changes within the K-State Research and Extension System to promote physical activity, including selecting physical activity (and nutrition) as primary research and practice outcomes, hiring the first state-level specialists in physical activity in the U.S. (housed in the Kinesiology department), establishing the first undergraduate emphasis in public health physical activity and a Master of Public Health with emphases in physical activity and nutrition, and impacting the education of several county Extension agents (Dzewaltowski et al., 2015). In addition, the CHI implemented several successful research and practice projects, including (a) the CHI Healthy Places Framework, which included several projects, such as an NIH funded Healthy Youth Places middle school randomized trial evaluating local adult and youth leaders’ use of evidence-based implementation strategies to promote healthy behaviors in school (Dzewaltowski, Estabrooks, & Johnston, 2002;
Dzewaltowski et al., 2009; Dzewaltowski, Estabrooks, Gyurcsik, et al., 2002); (b) the Healthy Opportunities for Nutrition and Physical Activity (HOP’N) After School Project, which was a USDA-funded integrated Extension project and school randomized trial that implemented a multi-level obesity prevention intervention (Dzewaltowski et al., 2010); and (c) Walk Kansas, a Kansas Social and Rehabilitative Services-funded statewide walking and fruit-vegetable consumption program, demonstrating positive effects on physical activity and fruit and vegetable consumption as well as strong reach, adoption, implementation, and both individual- and system-level maintenance (Burke et al., 2010; Doerksen & Estabrooks, 2007; Downey et al., 2012; Estabrooks et al., 2004, 2008; Shapcott et al., 2006; Wages et al., 2010).

More recently, USDA and Iowa State University Extension supported an obesity prevention dissemination initiative and a series of research studies on implementing evidence-based practices in schools. Iowa School Wellness Integration Targeting Child Health (SWITCH) was implemented based on the robust Healthy Youth Places framework, designed to increase the capacity of school leaders to lead school wellness programming (Chen et al., 2018; Welk et al., 2015).

By way of another state-based example, Oregon State University (OSU) Extension professionals partnered with Oregon’s Department of Education (ODE) to address a gap in available resources enabling elementary schools to meet new statewide policies related to physical education (P.E.). In July 2017, the Oregon legislature passed Senate Bill 4, requiring 150 minutes per week of P.E. for every public elementary school student (S. 4-A, 2017). As of June 2018, approximately 10% of Oregon’s public elementary schools were delivering the required minutes.

Schools reported barriers that included lack of resourcing to hire P.E. specialists and insufficient P.E. facilities to support more P.E. class time (Oregon Department of Education, 2017). The legislation was amended to address these barriers, allowing licensed classroom teachers to provide the required minutes under certain conditions, including using curricula aligned to state P.E. standards. However, no standards-aligned curricula met the unique needs of classroom teachers. Working collaboratively, ODE and OSU Extension adapted an evidence-informed classroom-based physical activity curriculum (B.E. Physically Active 2-Day; BEPA 2.0) to align with national and state P.E. standards (Gunter et al., 2017).

County-based Extension agents were trained annually to train local school district personnel to implement BEPA 2.0, which has become a relied upon strategy to help schools meet new statewide P.E. requirements (Taylor & Gunter, 2019). This train-the-trainer model has to date resulted in more than 50,000 children exposed to school-based physical activity opportunities, and data support that Extension trainers are as effective at translating knowledge and promoting self-efficacy among trained teachers (Taylor & Gunter, 2019).

South Dakota State University (SDSU) Extension professionals have also matched strategies across the levels suggested in Figure 1. For example, SDSU received the Centers for Disease
Control and Prevention CDC-RFA-DP14-1416 High Obesity funding from 2014-2018 (Promoting Healthy Living in South Dakota, n.d.). State budgeting and size of the system (e.g., low population) have limited the number of county-based agents across the state; therefore, one of the goals of the CDC-funded project was to build wellness coalitions to lead nutrition and physical activity changes at the community level, with physical activity interventions listed as one of the main performance evaluation criteria. The state-designated physical activity experts within SDSU Extension provided oversight and assistance for any staff working in a community to implement and promote physical activity interventions.

In addition, SDSU has fostered a partnership with the Department of Health to implement physical activity interventions, including a Park Prescription project where healthcare providers prescribe exercise and patients can use that prescription for entrance into any South Dakota State Park (Park Rx, n.d.); a worksite level Steps to Wellness project, which is based on the CDC’s toolkit for worksite wellness focusing on environmental change and policy implementation (e.g., signage for indoor and outdoor walking paths, bike racks, and provision of time for physical activity breaks) (South Dakota’s Steps to Wellness Program, n.d.); and the Arthritis Foundation’s Walk With Ease program, which includes educational discussion, warm up, walking, and a cool down to build confidence in walking as exercise, and was adopted statewide through training community-level leaders (Callahan et al., 2011).

Michigan State University Extension (MSUE), housed within the College of Agricultural and Natural Resources, strategically placed an exercise science educator as a primary lead for education initiatives that focused on physical activity within the Health & Nutrition Institute (HNI). HNI is one of four internally structured institutes housed within Michigan State University Extension based on four focus areas: leveraging natural and human assets, enhancing agriculture and agribusiness, improving health and nutrition for Michigan residents, and preparing Michigan’s children and youth for the future. HNI has four programmatic focus areas: fighting obesity and improving nutrition in Michigan, improving relationships and reducing stress and anger, preventing foodborne illness and ensuring a safer food supply, and taking an active role in managing chronic health conditions.

HNI aims to provide evidence-based disease prevention and management programs to promote healthy lifestyles and empower Michigan residents to take control of their health. Within HNI, older adult fall risk reduction was identified as a priority area (Bergen et al., 2016; Michigan Department of Health and Human Services, n.d.). To address this need, MSUE offers two evidence-based falls prevention courses: Matter of Balance (MOB; Haynes et al., 2014) and Tai Chi for Arthritis and Falls Prevention (TCA; Uhlig et al., 2010), both funded through local support and departments of health and human services. In 2018, participants in MOB ($N = 101$) and TCA ($N = 176$) reported positive outcomes captured in the state’s Impact Report. Significant improvements included confidence in avoiding future falls; improved muscle function in lower limbs; increased confidence in walking; and reduced stress, pain, and falls.
MSUE’s Falls Prevention Program facilitated collaboration with a multitude of stakeholders from medical students and residents (as early adopters for referrals into falls prevention programming) to physicians and clinical care management teams at health plans to health practices and providers (to explore avenues to provide long-term sustainability for evidence-based falls prevention courses). The MSUE’s Falls Prevention Program (efforts supporting both MOB and TCA) was federally funded through the Public Health Fund Department of Health and Human Services Administration for Community Living to develop and enhance integrated, sustainable systems for delivering evidence-based falls prevention programs. The falls prevention initiative showcased examples on each level iterated in Figure 1 and can potentially lead to policy change in referral and clinical care management.

In addition to these state-specific successes, the federally funded Supplemental Nutrition Assistance Program-Education (SNAP-Ed) is implemented by Extension across the nation. Based on the addition of physical activity to the updated 2014 Farm Bill, physical activity promotion became a necessity for all SNAP-Ed funded nutrition programs. One way to support physical activity promotion is to integrate physical activity behaviors or messaging within existing nutrition programs (Palmer-Keenan & Corda, 2014; Peña-Purcell et al., 2012). However, fidelity to the physical activity component is not always achieved. That is, much Extension work remains focused on nutrition behaviors, with physical activity as a complement or supplement to the work. Therefore, at times, dieticians and nutrition experts develop and integrate physical activity components to programs without adhering to the evidence-base.

There are opportunities for nutrition experts of Extension to partner with kinesiology experts of Extension, as has been modeled in the Eating Smart, Being Active (ESBA) SNAP-Ed and Expanded Food and Nutrition Education Program (EFNEP) curricula development and evaluation (Auld et al., 2015; Besculides et al., 2008). For this program, the principal investigator of the ESBA collaborated with two physical activity specialists to inform the updates and had a third exercise scientist review the updates. Key updates included a focus on experiential learning and mastery experience for the participants, as well as the inclusion of aerobic and strengthening exercises in alignment with the physical activity guidelines (Piercy et al., 2018). This model of updating the exercise component can be translated to other existing curricula.

**Limitations of the Current Extension Model**

These state-based and federal nutrition program successes provide evidence that Extension has the opportunity to be a sound model for physical activity promotion across the health span. However, there are several criticisms and challenges of fully integrating physical activity promotion within Extension. Even in the state-based examples presented here, programs are not scaled throughout the other states who have made physical activity promotion central to their Extension mission. This is, in part, due to a lack of infrastructure to support multi-state physical
activity-specific efforts. These challenges can be summarized in the fact that (a) there is no branch or entity at the national level who consider physical activity their purview or responsibility (e.g., no funding announcements or program leader), (b) there are no branded physical activity Extension programs implemented in every state, which limits recognition for healthcare providers to refer to Extension programming, and (c) there are no standards for reporting physical activity outcomes and therefore only limited local program evidence is available to support that Extension can impact the physical activity behaviors of Americans.

In a recent report, King (2018) noted that if Extension did not step up to address present realities, when one asks Amazon’s virtual assistant: “Alexa, what’s an Extension agent?,” the response may become “It appears that an Extension agent is an anachronism—a person who at one point in history provided personalized information from universities.” To avoid being an anachronism, we need to change the expectations, roles, and measurable impacts of Extension physical activity promotion.

If four primary limitations are addressed, the impact of the Extension model on physical activity could be greatly improved. First, prior to the release of the policy documents related to health, many statewide Extension specialists were working in silos, particularly in physical activity (Harden et al., 2016). One reason for the siloed approach was that much of Extension funding comes from counties and states, which underscores the need for demonstrated county-specific impacts important to stakeholders (e.g., commissioners or senators/representatives). This reflects the need for generalizable knowledge and local impacts, appeasing county-specific funders and advancing empirical inquiry. However, rather than reporting county-specific initiatives and impacts only, concerted efforts across the nation may improve the Reach of the target audience, Effect on targeted behavioral outcomes, Adoption within settings and among staff, high-quality Implementation, and Maintenance of behaviors as well as within the system, as proposed in the RE-AIM framework (Balis, John, et al., 2019; Glasgow & Estabrooks, 2018; Glasgow et al., 2020). Professional development on these concepts of internal and external validity may be necessary to impact agent, specialist, and stakeholder interest in RE-AIM-based outcomes.

Second, much of the success within Extension has been disseminated through standard academic dissemination practices (Nasca & Philibert, 2009), that is, only learning about an intervention through peer-reviewed literature or a conference presentation (Cull et al., 2018). The lack of dissemination is further exacerbated by the fact that much Extension work has been published for Extension-specific audiences, which (a) keeps the system from being understood by potential partnering agencies, researchers, and practitioners and (b) has brought into question the degree to which Extension professionals deliver evidence-based interventions (Perkins et al., 2014).

Third, the complexity of the Extension system also impacts the perceptions of agents within the system itself. For example, a system-level shift now “allows” Extension to address chronic disease management and physical activity. Adequate training to address these changing demands
is needed (Harden et al., 2017; Johnson et al., 2016). Communicating these system-level changes and providing adequate training so that field professionals can address these community needs also remains a challenge (Balis et al., 2018).

For example, a systematic review of open-access older adult physical activity programs found 17 unique Extension programs delivered across 15 states (Balis, Strayer, et al., 2019). Efforts have been made to scale-out existing programs from one state to another; however, this remains challenging due to the lack of a physical activity specialist in each state and state-specific barriers (e.g., large geographic work areas and lack of funding) (Balis et al., 2018; Balis & Harden, 2019). This is particularly ironic as Extension is often thought of as a rural-serving organization, and yet, the most distal places in each state are underserved even by Extension due to funding constraints and the cost-benefit of programming inputs versus resulting outcomes/impacts (e.g., a primary focus on reach and not impact) (Balis et al., 2019; Estabrooks & Gyurcsik, 2003).

For scale-out efforts to be successful, specialists need to work together to disseminate and adapt effective programs. Spontaneous communication or program uptake is rare, and concerted communication and information-sharing efforts are needed (Brownson et al., 2018; Harden et al., 2020). Additionally, system-level shifts within states are needed to prioritize physical activity promotion and partnership. Indeed, collating successes from states across the nation for this paper is part of ongoing efforts to be more connected across state lines.

Finally, Extension has yet to identify who is leading the charge for physical activity promotion specifically. One strength of the Extension model is employing university-based specialists who serve as knowledge-brokers (Jessani et al., 2016; Klerkx Laurens et al., 2012; Ward et al., 2009) to provide training, technical assistance, and support for agents. However, in 2015, only 13 state systems included any physical activity objectives within their state Extension strategic plans (Harden et al., 2016). This is concerning as strategic planning underscores administrative support, resources, and protection of time to engage in the multi-level and time-consuming work that is necessary to achieve a public health shift in physical activity behaviors. This lack of support is reflected in the fact that we can only identify nine exercise/physical activity specialists across the nation. This is problematic because very few state physical activity specialists are doing quite a bit of work that is intended to inform practice; however, dissemination options and structure for training, technical assistance, and support (from specialists to specialists or specialists to other agents) remain limited. More specifically, when a state does not employ a physical activity specialist, the burden to support physical activity efforts is cast upon specialists with varying expertise (e.g., nutrition, health, etc.) who often do not feel they have the knowledge, capacity, support, or priority to engage in physical activity-specific work. This lack of structure to support dissemination among specialists results in huge state-by-state differences but has also led to duplication of efforts across states, highlighting an opportunity to streamline delivery at a federal level. Federal support will require systems-level shifts in structure and
resources (e.g., resources for an innovation broker or a repository of existing interventions [materials, training, evaluations]).

Many state specialists have tried to avoid working in silos by joining many working groups whose aim is to impact health. These groups are often focused specifically on nutrition or more broadly on wellness. Rarely is physical activity a priority outcome. Notably, we do not argue for a divorce between nutrition and physical activity promotion; however, physical activity in itself is a viable option for chronic disease prevention and management and several health and environmental benefits. There is no existing structure to acknowledge, support, and connect physical activity leaders in Extension across the nation. As one example, the Exercise is Medicine Community Health subcommittee was originally founded by Extension specialists to integrate members of the American College of Sports Medicine (ACSM) and specialists of this national system. However, after nine years, this committee was dissolved in 2018 and restructured with some additional foci. This was one meeting where exercise specialists could exchange ideas and develop action plans for physical activity. Without supported, motivated recipients at the state and federal level to whom we can disseminate, we retreat to the state-focused model. Notably, while internal support has yet to flourish, individuals from the ACSM and Centers for Disease Control (CDC) and Prevention are forging partnerships and providing encouragement and support. Essentially, entities with whom Extension professionals can partner are enthusiastic about the Extension infrastructure and its potential to reach Americans and impact health; however, the USDA does not actively support these efforts across the health span. Notably, the guiding policy has “childhood obesity prevention” language; therefore, more work has been supported that directly benefits youth, but other physical activity efforts remain underfunded and undervalued.

Two key releases may increase change and support of physical activity efforts in Extension. First, the 2018 Physical Activity Guidelines for Americans (Piercy et al., 2018) address the importance of promoting physical activity and includes increased evidence of the benefits of physical activity on population health. Second, the World Health Organization released the Global Action Plan on Physical Activity (2018-2030), stating,

> Physical activity has multiple health, social and economic benefits and can contribute to achieving the 2030 Sustainable Development Goals (SDGs). Policy action on physical activity is interconnected with 13 SDG’s…a key feature of this new plan is its call for a “systems-based” approach where effective implementation will require bold leadership combined with cross-government and multi-sectoral partnerships at all levels to achieve a coordinated, whole-of-system response. (World Health Organization, 2018, para. 4)

Taken together, Extension can step into this space for systems-based physical activity promotion and use similar processes that have been successful with agriculture, youth development, and childhood obesity prevention.
Recommendations

The system and its dedicated personnel are available to promote health, but multi-level changes are needed to make health, evaluation, and dissemination equal priorities. In alignment with Figure 1, national facilitators, such as funds and role clarity around physical activity promotion, are needed. First, we argue that the USDA infrastructure should clarify the role of Extension in physical activity promotion. For example, there are many places where physical activity may fit within the USDA system (e.g., nutrition and health, family and community health), but not one USDA branch claims physical activity as a core component to their work. This lack of fit trickles to the state level where professionals from the Family and Consumer Sciences (FCS) program area may be promoting physical activity, but the official FCS name may not be reflective of their scope of work. This reason, in part, has led many states to change the name of their program area to be more inclusive such as Family and Community Health or Family and Community Wellness. However, this change has not spread nationally as some state agents specifically identify with the FCS heritage and background. Yet, many FCS county positions are not being filled (Memmott, 2019), potentially because not enough trained individuals identify with FCS rather than public health promotion, health sciences, etc. Clarification on physical activity promotion, value, and support should be reflected in USDA and Extension policies and funding announcements. This clarification on roles and value may improve Extension professionals’ capacity to evaluate physical activity promotion efforts. Many states aim for more robust evaluation metrics (e.g., reporting impacts beyond simply reach as a shared goal) to report national, collective impacts. That is, the ability to report state and national impacts related to physical activity requires common measures. Extension professionals need to decide what measures are most meaningful across all physical activity promotion efforts (e.g., step counts, a validated survey, knowledge and attitudes).

Second, to promote these policies and achieve work proposed within the funding announcements, each system needs the capacity to hire more specialists with multiple state responsibilities—and, specifically, physical activity promotion. These new hires would have protected time for collaboration among exercise specialists as well as time to provide training, onboarding, and curriculum sharing (Harden et al., 2020). In recent work to understand information-sharing practices within Extension, specialists were identified as the key to program development, adaptation, training, delivery, and evaluation (Strayer et al., 2019). Notably, each specialist is “specialized,” for example, some have expertise in recreational sports, others in strength training for older adults, and others still in mind-body practices (Harden et al., 2020). The thought that any one specialist can have expertise across all populations and health span needs is an unrealistic expectation and burdensome. Continuously hiring content-area experts, rather than health promotion experts, may limit the scope of offerings by specialists and, thereby, restrict expertise within each state. Finally, a recent mixed-methods study found specialists reported using over 15 different academic journals and many government resources to learn about interventions that they might adapt or adopt in their respective states (Strayer et al., 2019).
These government resources were: other state Extension systems, eXtension (a nonprofit organization to help make Extension work visible), the Centers for Disease Control and Prevention, the National Institutes of Health, the United States Department of Agriculture, and the Federal Trade Commission (Strayer et al., 2019). The lack of a centralized repository of programs for Extension professionals leads to restrictive offerings, misinformation about interventions, or developing new interventions that have the same constructs or purpose. Therefore, specialist resource-sharing is imperative to ensure Extension provides the most offerings to encompass direct education to policy, systems, and environmental work across the health span.

Third, agents are overburdened with the breadth and depth of programming for which they are responsible (Balis et al., 2018; Ensle, 2005; Fetsch & Kennington, 1997; Strayer et al., 2018; Wang, 2014). Individual agents’ job descriptions indicate that their primary responsibility is not physical activity promotion, nor should it be, considering the breadth and depth of health promotion offerings for which Extension is responsible. More specifically, a recent study reported that Extension agents across the nation target 22 different health-related areas (e.g., food safety, human development, nutrition) (Strayer et al., 2019). While one agent may not face all 22 areas, the point is that each agent faces unique responsibilities, engages in a variety of partnerships (e.g., schools, social services, health departments, faith-based organizations), and has their own expertise. Put simply, an agent’s job responsibilities are diverse and complex, which sometimes causes agent turnover. Thus, the focus needs to shift further toward policy-, environmental- and systems-level health promotion strategies. For example, better dissemination strategies and tools may allow agents to focus on needs instead of trying to become experts on every health issue that arises across communities in the US (Strayer, 2019). Extension personnel can instead advocate, educate, and disseminate best practice strategies to create communities, schools, family home environments, etc. that enable physical activity for the populations exposed to those environments. This is a cost-effective approach that negates the disciplinary and safety training required for Extension agents to directly deliver physical activity programming. Lack of training, competence, and confidence are often-cited barriers to implementing physical activity, and direct education is a high investment for low-reach and low impact (Gunter et al., 2018; Peña-Purcell et al., 2012). With a shift toward policy and systems approaches, county professionals can focus on community needs assessment, coalition building, and facilitating efforts to create healthier, more equitable communities.

Finally, these examples for policy, system, and environmental work are underscored by the need to partner within and outside of Extension. That is, professionals within Extension need to change the old paradigm of competition into collaboration and work with, rather than compete against local organizations to strengthen shared programming areas and build capacity in areas unique to each partnering organization. This approach builds capacity to accomplish the large and multidisciplinary challenges associated with promoting physical activity. This extends to building and strengthening partnerships with campus-based physical activity experts who are
often unaware of opportunities and benefits of partnering with Extension to develop, implement,
and evaluate physical activity promotion strategies (Exercise is Medicine, Community Health
Subcommittee, 2016; Harden et al., 2018). Closing this gap in competition and shifting to
resource-, personnel-, and information-sharing can attack the wicked problem of inactivity.

**Discussion**

As with any national and federally funded system, Extension has strengths, challenges, and
opportunities. Extension professionals strongly desire to remain relevant, show impact, and
achieve public value. Extension professionals and volunteers impact the lives of individuals in
both rural and urban settings in ways that other organizations’ infrastructures cannot, which is
attributed to over a century of work earning trust and demonstrating impacts in communities
across the nation. Rather than seeing Extension as a competitor with other community-based
organizations for resources and access to populations in need, more people need to know that
Extension professionals are a reputable and passionate force to help with health promotion
efforts. Indeed, the system provides a prime employment opportunity for those educated in
leading health fields (from kinesiology and food science to public health). As we try to promote
physical activity in Extension and capture meaningful measurement of those efforts, multi-level
changes are needed to support the work that happens in the real, real-world.

This report shares experiences and data from a number of physical activity experts of Extension;
however, this work is by no means comprehensive of all physical activity promotion efforts in
Extension. The strength of these examples is that they highlight similarities and differences
across the lifespan, geographic regions, and dose of physical activity “intervention.” We used
this report to demonstrate our experiences and craft a call to action within Extension and among
Extension partners so that physical activity efforts can be strategically developed, delivered, and
evaluated.

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Paul Estabrooks, PhD, works in the Department of Health Promotion at the University of Nebraska Medical Center, College of Public Health. Dr. Estabrooks is a practical, behavioral scientist with a vision is to do research that integrates with health systems in a way that will result in a large public health impact. He also studies health promotion initiatives that can be sustained in typical community and clinical settings, at a reasonable cost, and benefiting groups that experience health disparities.

David Dzewaltowski, PhD, works in the Department of Health Promotion, Buffett Early Childhood Institute at the University of Nebraska Medical Center. Dr. Dzewaltowski’s work aims to improve children’s physical activity and nutrition for population health by identifying drivers of health behavior and evaluating interventions facilitating organizational change across sectors, resulting in numerous places promoting health behavior where people live, learn, work, play, and seek care.

Katherine Gunter, PhD, works in the School of Biological and Population Health Sciences, the Center for Healthy Aging Research Hallie E. Ford Center for Healthy Children & Families, and the Extension Family and Community Health Program within the College of Public Health and Human Sciences. Dr. Gunter examines the effects of a physically active lifestyle on the prevention and management of chronic disease. Efforts are primarily directed toward promotion of skeletal health across the lifespan and prevention of childhood obesity.