Journal of Physical Activity and Health, 2009, 6, 682-689

Elevating Physical Activity as a Public Health Priority: Establishing Core Competencies for Physical Activity Practitioners in Public Health

Amber Dallman, Eydie Abercrombie, Rebecca Drewette-Card, Maya Mohan, Michael Ray, and Brian Ritacco

Background: Physical activity has emerged as a vital area of public health. This emerging area of public health practice has created a need to develop practitioners who can address physical activity promotion using population-based approaches. Variations in physical activity practitioners' educations and backgrounds warranted the creation of minimal standards to establish the competencies needed to address physical activity as a public health priority. ***Methods:*** The content knowledge of physical activity practitioners tends to fall into 2 separate areas—population-based community health education and individually focused exercise physiology. Competencies reflect the importance of a comprehensive approach to physical activity promotion, including areas of community health while also understanding the physiologic responses occurring at the individual level. ***Results:*** Competencies are organized under the Center for Disease Control and Prevention's 5 benchmarks for physical activity and public health practice. ***Conclusions:*** The greatest impact on physical activity levels may be realized from a well-trained workforce of practitioners. Utilization of the competencies will enable the physical activity practitioner to provide technical assistance and leadership to promote, implement, and oversee evaluation of physical activity interventions.

Keywords: exercise, credential, credentialing, benchmarks, scope of practice, NSPAPPH, PAPH

Physical activity is a priority area of public health.[1,2] As physical activity increases as a public health priority the public health infrastructure at the federal, state and local levels needs to be developed and sustained. The National Society of Physical Activity Practitioners in Public Health (NSPAPPH) was created, in part, to increase the capacity of physical activity practitioners in public health to reduce chronic disease and address other public health issues related to physical activity. A key role for the NSPAPPH is to address the professional development needs of physical activity practitioners in public health. Professional development needs focus on planning, implementing, and evaluating evidence-based physical activity strategies.[2,3] Through the development, promotion, and use of core competencies, NSPAPPH will assure that public health professionals working in physical activity have the core set of competencies necessary to address population-based physical activity levels.

The physical activity practitioner is a professional devoted to promoting population-based physical activity using a variety of public health strategies. There are a variety of sectors (eg, communities, worksites, schools, etc.) where practitioners promoting physical activity can influence and implement these strategies to reduce the impact of numerous chronic diseases. Physical activity practitioners may be employed at a variety of settings such as state and local health agencies, universities and other academic settings, medical settings, or health insurance providers, therefore core competencies more effectively align strategies used by practitioners. Practitioners engage programmatic strategies that address multiple levels of influence including environmental and policy approaches combined with social marketing, which are necessary to change individual behavior.[4,5]

Physical activity practitioners working in public health come from diverse academic and professional

Dallman is with the Environmental Health Section, Saint Paul – Ramsey County Dept of Public Health, St. Paul, MN. Abercrombie is with the Arkansas Dept of Health, Benton, AR. Drewette-Card is with the Maine Center for Disease Control and Prevention, Augusta, ME. Mohan is with the Nutrition and Physical Activity Unit, Massachusetts Dept of Public Health, Boston, MA. Ray is with the Nebraska Dept of Health and Human Services, Lincoln, NE. Ritacco is with the Oregon Dept of Human Services, Portland, OR.

backgrounds, which include health education and promotion; health science, exercise science; public health; and other health-related professions. The diversity in educational background underscores the need to create a common set of competencies that should be met by all practitioners addressing population-based physical activity promotion.

As a first step in defining the scope of practice, the Centers for Disease Control and Prevention's (CDC) Physical Activity and Health Branch established 5 public health benchmarks for physical activity. The benchmarks were developed as a guide to increase the capacity and infrastructure of state departments of health to improve physical activity promotion.[4,6] The benchmarks provided the ideal framework for developing core competencies for physical activity practitioners.[3]

Core competencies are the essential values, knowledge, abilities, and skills that define professional practices for a given field. They are core to performing the job at a competent level to the professional practice they define. They are established standards by which the performance of a specified profession can be measured. Over the last 20 years, core competencies in health-related disciplines have evolved. They have been used to: 1) assist academic institutions and training providers to develop curricula and course content, and to evaluate education and training programs, 2) establish interprofessionalism and collaboration among health care disciplines, 3) create innovations in health care delivery and changes in the scope of practice, due to a shortage of health care professionals, and 4) define a discipline and specialty standards as well as expectations to align practitioners, educators, and other professionals with evidence-based standards of occupational performance.[7,8]

There are established core competencies in many health-related disciplines such as nursing, environmental health, violence and injury prevention, emergency preparedness, and public health.[8–12] Establishing a set of core competencies for physical activity practitioners in public health became a priority of NSPAPPH to assist in achieving its goal to elevate physical activity in public health practice.[13]

Methods

In 2004, NSPAPPH introduced the idea of developing core competencies for physical activity practitioners. Because of practitioners' diverse academic and professional backgrounds, there was a need to establish core competencies to provide a base of knowledge, skills, and abilities for the profession. Further, core competencies would provide a basis for future credentialing, training recommendations, licensure of physical activity practitioners, and university degree programs courses and curriculum.

NSPAPPH began the process of developing core competencies by conducting an inventory of existing physical activity related certifications, programs, and training resources. The inventory was conducted to ensure standards from other programs were incorporated. The inventory was also used to verify that an established standard specific to physical activity practitioners in public health did not currently exist. Table 1 highlights the scope of various certifications, with similar minimum

Table 1 Comparable Certifications and Credentials

Certification	Minimum education requirements[1]	Exercise physiology[2]	Special need[3]	Individual based[4]	Population based[5]	Partnerships[6]	Data & scientific information[6]	Planning & evaluation[6]	Program implementation[6]	Organizational structure[6]
Physical Activity Practitioner—American College of Sports Medicine & National Society for Physical Activity Practitioners in Public Health	B.S & 600 hours related experience	X	X	X	X	X	X	X	X	X
Health Fitness Specialist—American College of Sports Medicine	Associates or B.S. in related field	X	X	X					X	
Exercise Specialist—American College of Sports Medicine	B.S. & 600 hours related experience	X	X	X					X	
Certified Strength & Condition Specialist—National Strength and Conditioning Association	B.S/B.A.	X	X	X					X	

continued

Table 1 ***continued***

Certification	Minimum education requirements[1]	Exercise physiology[2]	Special need[3]	Individual based[4]	Population based[5]	Partnerships[6]	Data & scientific information[6]	Planning & evaluation[6]	Program implementation[6]	Organizational structure[6]
Practitioner in Physical Activity Course—University of South Carolina			X		X				X	
Certified Health Education Specialist—NCHEC	B.S./B.A.		X		X	X	X	X	X	

[1] Indicates the minimum education requirements to sit for certification.
[2] Indicates if the certification covers basic principles of exercise physiology.
[3] Indicates if the certification covers physical activity strategies for special populations (eg, older adults, overweight/obese adults).
[4] Indicates if the certification addresses exercise prescription for individuals.
[5] Indicates if the certification addresses physical activity program planning, implementation for identified target populations.
[6] Indicates if the certification addresses benchmarks identified as essential for PAPH practitioners, including (1) develop and sustain effective partnerships, (2) make use of public health data and scientific information in developing and prioritizing community-based interventions to address physical activity, (3) understand and implement a sound approach to physical activity planning and evaluating, (4) implement evidence-based intervention strategies at the informational, behavioral and social, and environmental and policy levels, and (5) develop an organizational structure that facilitates program growth and sustainability.

education requirements, as they relate to the competent Physical Activity in Public Health practitioner. NSPAPPH worked to identify areas practitioners need to be competent. These include the ability to understand basic exercise physiology concepts; addressing special health needs in groups; promoting physical activity across populations, not only to individuals; and finally covering each of the benchmarks the competencies fell under—promoting partnerships, understanding data and scientific information, planning and evaluating physical activity programs, implementing physical activity program, and understanding organizational structures. Table 1 underscores the need for developing competent PAPH practitioners.

Certification programs from a variety of accredited agencies (eg, American College of Sports Medicine, National Strength and Conditioning Association) were inventoried. These programs provided an array of physical activity related certifications (eg, Health Fitness Instructor, Certified Strength and Conditioning Specialist). All of the existing certifications primarily focused on individual-level health promotion and had little or no application to the population-based approach unique to the public health setting.

Public health credentialing and training programs were inventoried, including the National Commission for Health Education and Credentialing and the Physical Activity and Public Health Practitioners Course. The National Commission for Health Education and Credentialing offers the community health education specialist credential that is based on core competencies in health education. The Physical Activity and Public Health Practitioners Course, sponsored by the University of South Carolina's Prevention Research Center and CDC, offers a 1-week comprehensive curriculum to train practitioners in planning, implementing and evaluating population-based physical activity efforts. The University of South Carolina offers a masters degree in public health with a physical activity emphasis. Several other universities offer a masters-level track or emphasis on physical activity in public health as well. The University of North Carolina conducted a survey of health policy and environmental change competencies. NSPAPPH also inventoried a number of general training resources that provided continuing education units for public health professionals. All of these programs combined to provide academic and applied frameworks for the core competencies of physical activity practitioners in public health.

After the inventory of the various physical activity-related credentialing and training programs was completed, NSPAPPH began developing the content for the core competencies. It was decided that the content should cover a broad collection of knowledge, skills and abilities ranging from general population-based community health education to specific exercise physiology and exercise prescription. The competencies needed to reflect the importance of a comprehensive, evidence-supported, population-based approach to promoting physical activity while including an understanding of individuals' physiologic responses when engaging in regular physical activity. The competencies of the physical activity practitioner needed to include the ability to assess what evidence-based interventions are appropriate for specific target populations with differing needs

and capabilities. It was determined that practitioners should be able to differentiate how physical activity is promoted as a preventive tool for physical, mental, and social health conditions as well as a treatment tool for chronic diseases and conditions. Physical activity practitioners should be exposed to and understand current and future methods to objectively measure physical activity such as assessing how changes in the built environment impact physical activity. NSPAPPH recognized that practitioners should have knowledge of conceptual and theoretical models surrounding physical activity, which include behavior change theories. Practitioners need to use knowledge and skills as to be effective project managers of evidence-based physical activity initiatives and programs. Another necessary skill that practitioners need to use in population-based approaches to promote physical activity fall under the umbrella of communication—from oral to written and from media advocacy to policy development. Lastly, practitioners should have the ability to translate exercise science and physical activity research into effective public health initiatives. All of the necessary knowledge, skills, and abilities were incorporated into the core competencies for physical activity practitioners working in public health.

Results

Competencies to be considered essential for a competent, skilled and effective physical activity practitioner in public health were developed. The competencies were organized under the CDC's 5 benchmarks for physical activity and public health practice.[6] Upon assembling the extensive list of essential competencies into the benchmark framework, a process was undertaken to prioritize the competencies to determine those that would be the key or core competencies. This prioritization process included review and critique by a select group of physical activity practitioners working in state departments of health. The final set of core competencies was adopted in 2005 (see Appendix). A summary of the core competencies under each benchmark follows.

Benchmark 1: Develop and Sustain Effective Partnerships

The core competencies under Benchmark 1 reflect strategies for successful relationship building. Public health has a long history of collaboration to improve the public's health. Building on this tradition of developing and maintaining partnerships, NSPAPPH included several competencies that are essential to help practitioners build and maintain effective partnerships. The competencies found under this benchmark emphasize the importance of partnerships and the myriad of partnerships that exist in the field. Competent physical activity practitioners should demonstrate skills in partnership building, collaboration and communication with a variety of agencies and agencies, and capitalize on a variety of resources to promote physical activity at multiple levels.

Benchmark 2: Make Use of Public Health Data and Scientific Information in Developing and Prioritizing Community-Based Interventions to Address Physical Activity

Benchmark 2 emphasizes the importance of utilizing public health data and other scientific information in decision-making. Public health has developed an array of tools to collect, analyze and disseminate population-based and programmatic data. Effective physical activity practitioners should stay abreast of current trends, developments, guidelines and recommendations in the field of physical activity, including determining physical activity levels across populations. Practitioners should have an understanding of the basic principles in epidemiology and biostatistics. They should have the ability to interpret scientific data and other nontraditional sources of information to develop and implement appropriate population-based physical activity programs, including programs for populations more likely to be physically inactive due to ethical, political, scientific, economic, and other conditions impacting health.

Benchmark 3: Understand and Implement a Sound Approach to Physical Activity Planning and Evaluating

Benchmark 3 underscores the need for rigorous approaches to physical activity planning and evaluation, based on theoretical frameworks and models, such as behavior-change theories and evidence-based approaches. Competent physical activity practitioners are able to serve as technical experts and advisors to partners and collaborators throughout the design, implementation, and evaluation phases of physical activity interventions, programs, and policies. Physical activity practitioners should comprehend the larger context of physical activity promotion and have the ability to address cultural, social, and behavioral factors that contribute to disease progression, as well as the effects of political dynamics on the delivery of essential public health physical activity services. Specifically, competent practitioners will understand how to appropriately use social marketing and how to develop, use, and evaluate SMART (specific, measurable, achievable, relevant, and time-bound) objectives. They must also know how to evaluate physical activity initiatives, including collaborating with evaluators and comprehending quantitative and qualitative evaluation methods.

Benchmark 4: Strategically Implement Evidence-Based Intervention Strategies at the Informational, Behavioral and Social, and Environmental and Policy Levels

For physical activity practitioners to be competent in Benchmark 4, they must understand effective physical activity intervention strategies for multiple levels of the socioecologic model, and know how to translate that information and make recommendations to partners and other constituents (Figure 1). They must also understand how to coordinate the efforts of community organizations with local and state-level policies to create more opportunities for physical activity.

Benchmark 5: Develop an organizational Structure That Facilitates Program Growth and Sustainability

Benchmark 5 underscores the need of organizational and staff development that supports the continued growth and sustainability of physical activity programs. Competent physical activity practitioners can use exercise science and public health knowledge to prepare professional development plans, effectively manage budgets and understand the internal and external factors that affect them, prepare grant applications, reports and other publications and understand the roles of federal, state and local partners. When a physical activity practitioner understands how to support their personal professional growth they may be able to better address and demonstrate skills in effective collaboration strategies; including management, technical assistance, facilitation skills, networking, and volunteer retention.

Conclusions

Core competencies define the recommended essential values, knowledge, abilities and skills for public health staff assigned to physical activity efforts. Physical activity practitioners in public health meeting these core competencies will have the ability to develop and sustain effective, appropriate and beneficial partnerships; use public health data in developing interventions; understand and implement sound approaches to planning and evaluation; strategically implement evidence-based strategies at multiple levels and effectively develop a physical activity program within their health department or other public health organization.

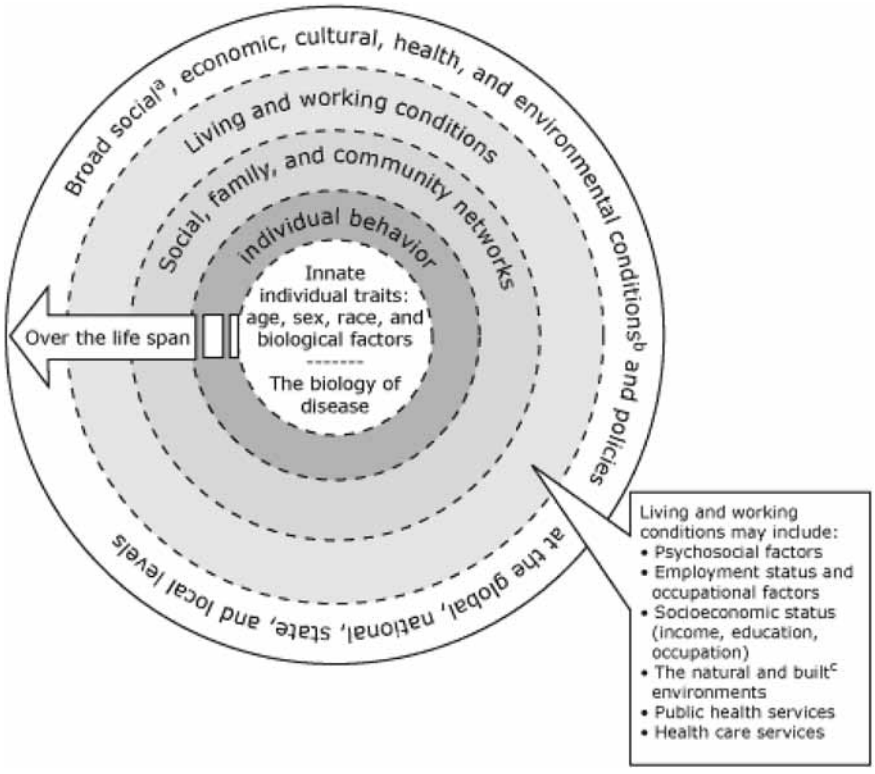

Figure 1 — Institute of Medicine's model of the multiple determinants of health; key components are also found in socioecologic models.[8] a. Social conditions include economic inequality, urbanization, mobility, cultural values, attitudes, and policies related to discrimination and intolerance on the basis of race, gender, and other differences. b. Other conditions at the national level include major sociopolitical shifts such as recession, war, and governmental collapse. c. The built environment includes transportation systems, water and sanitation systems, housing, and other dimensions of urban planning.

There are many uses for the core competencies, including addressing training needs of physical activity practitioners. The competencies provide a framework around which academic institutions can structure their physical activity and public health programs. Schools of public health and other health promotion programs now have a context for physical activity-related curriculum. Posteducation, the competencies can be used to assess the continued training needs of NSPAPPH members and others, to maintain up-to-date knowledge and skills base. To assess ongoing training needs of members, NSPAPPH plans to periodically assess its membership to determine appropriate training content. Two assessments have already been conducted; the first completed in December 2005 followed by one in October 2007. Based on the assessment results, NSPAPPH has and will coordinate several training opportunities to assist practitioners in nurturing the knowledge, skills, and abilities found within the core competency framework.

In addition, the core competencies can be used to develop hiring practices to assure that individuals taking public health positions promoting physical activity have the necessary skills. To date, several states and local programs have used the core competencies to hire physical activity practitioners.

NSPAPPH hosts quarterly teleconferences based on the core competencies to provide members with relevant training. To date, training topics have included understanding and implementing environmental and policy interventions and increasing awareness around accessibility; universal design and the Americans with Disabilities Act to promote physical activity; promoting active communities through the built environment; universal screen time reduction; and health impact assessments. In addition, the 2007 annual NSPAPPH business meeting incorporated a half-day to skill building workshop, devoted to health policy development and environmental change strategies.

The NSPAPPH will use the core competencies to establish guidelines and qualifications for hiring and efforts to create pay equity with other credentialed or licensed public health professions. NSPAPPH has partnered with the American College of Sports Medicine (ACSM) to establish an accredited physical activity and public health certification to further elevate the profession of physical activity practitioners in public health and other health professionals, based on the core competencies. It seemed logical to approach ACSM to broaden their certifications to include a population-based approach for physical activity promotion, as they had an existing relationship with CDC who assisted in developing the benchmarks. The certification is based on a test centered on the core competencies. This accredited certification supports formal recognition of physical activity practitioners and the diverse sectors and populations they influence.

The greatest impact on physical activity levels may be realized from a well-trained workforce of physical activity practitioners in public health, which established core competencies will help achieve. Competent physical activity practitioners will effectively build strong coalitions, communicate with the public, and positively influence policy and environmental changes, which will facilitate population-level increases in physical activity.

Acknowledgments

The authors and the National Society for Physical Activity Practitioners in Public Health would like to thank the Centers for Disease Control and Prevention—Division of Nutrition, Physical Activity and Obesity for their assistance in the competency development, as well as the Directors for Health Promotion and Education and Chronic Disease Directors for their ongoing support. Much gratitude and appreciation is given to Jackie Epping, Kristy Hansen, Greg Heath, Sarah Martin, and Tammy Vehige for their help in the front-end of this process as well as Refilwe Moeti, LeeAnn Mordecai, Lori Schneider, and Suzanne Kelley for their contributions to this paper.

References

1. Kohl HW, III, Lee I-M, Vuori IM, Wheeler FC, Bauman A, Sallis JF. Physical activity and public health: the emergence of a sub discipline. *J Phys Act Health*. 2006;3:344–364.
2. Kohl HW, III, Hootman JM. Physical activity: yes, it is a subdiscipline. *J Phys Act Health*. 2007;4:1–2.
3. Kimber C, Abercrombie E, Eidson P, et al. Elevating physical activity as a public health priority: creation of the National Society of Physical Activity Practitioners in Public Health. *J Phys Act Health*. 2008.
4. Institute of Medicine. *The future of the public's health in the 21st century*. Washington, DC: The National Academies; 2003.
5. McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. *Health Educ Q*. 1988;15:351–377.
6. Martin SL, Vehige T. Establishing public health benchmarks for physical activity programs [letter to the editor]. *Prev Chronic Dis.* July 2006. Available at: http://www.cdc.gov/pcd/issues/2006/jul/06_0006.htm (accessed 3/27/2008).
7. US Department of Health and Human Services. *Physical activity and health: a report of the Surgeon General*. Atlanta, GA: US Dept of Health and Human Service, Center for Disease Control and Prevention, and National Center for Chronic Disease Prevention and Health Promotion; 1996.
8. Verma S, Patterson M, Medves J. Core competencies for health care professionals: what medicine, nursing, occupation therapy, and physiotherapy share. *J Allied Health*. 2006;35:109–115.
9. American Public Health Association, National Center for Environmental Health, Centers for Disease Control and Prevention. *Environmental Health Competency Project: recommendations for core competencies for local environmental health practitioners.* 2001. Available at: http://www.cdc.gov/nceh/ehs/Corecomp/Core_Competencies_EH_Practice.pdf (accessed 3/27/2008).

10. Knox LM, Spivak Ha. What health professionals should know: core competencies for effective practice in youth violence prevention. *Am J Prev Med.* 2005;29:5S2:191-199.
11. Markenson D, DiMaggion C, Redlener I. Preparing health professions students for terrorism, disaster, and public health emergencies: core competencies. *Acad Med*. 2005;80(6):517–526.
12. Council on Linkages between Academia and Public Health Practice. *Competencies project: core competencies with skill level. 2001*. Available at: http://www.trainingfinder.org/competencies/list_levels.htm (accessed on 4/18/2007).
13. Hansen K. Public health attention for physical activity [letter to the editor]. *Prev Chronic Dis.* 2007;4(1). Available at: http://www.cdc.gov/pcd/issues/2007/jan/06_0136.htm (accessed on 3/27/2008).

Appendix
Core Competencies—Essentials for Public Health Physical Activity Practitioners

Benchmark 1: Develop and Sustain Effective Partnerships

1.1. Demonstrate skills in developing strong, sustainable partnerships.
1.2. Collaborate and communicate with governmental and nongovernmental agencies on issues relating to physical activity.
1.3. Work with organizations to leverage, combine, and capitalize on complementary strengths and capabilities and resources for the promotion of physical activity.
1.4. Engage and collaborate with nontraditional partners to more comprehensively promote physical activity at multiple levels and settings, and in a variety of populations.
1.5. Collaborate with the media to communicate appropriate public health and physical activity messages to intended audiences.

Benchmark 2: Make Use of Public Health Data and Scientific Information in Developing and Prioritizing Community-Based Interventions to Address Physical Activity

2.1. Identify and use public health data as a tool to develop and prioritize community-based interventions or policies to promote physical activity.
2.2. Maintain professional knowledge of current trends, developments, guidelines and recommendations in the field.
2.3. Review and recommend appropriate practices and procedures for the development and implementation of physical activity programs.
2.4. Summarize data to illuminate ethical, political, scientific, economic, and public health issues including health disparities.
2.5. Understand and interpret nontraditional sources of data to address program needs (eg, transportation data).
2.6. Use measurement and surveillance mechanisms to determine physical activity levels across populations.

Benchmark 3: Understand and Implement a Sound Approach to Physical Activity Planning and Evaluating

3.1. Use theoretical frameworks and models to plan and evaluate physical activity interventions.
3.2. Serve as a technical expert and advisor in the design, implementation, and evaluation of physical activity interventions associated with chronic disease and other related public health programs.
3.3. Address cultural, social and behavioral factors that contribute to disease progression and health promoting behaviors within a larger context.
3.4. Identify internal and external issues (eg, changes and trends in financing, regulation, legislation and policies) while planning (eg, programs, policies, etc.) that may impact delivery of essential public health physical activity services.
3.5. Use social marketing (marketing principles to influence human behavior to improve health or benefit society) to assist in planning and evaluating.
3.6. Oversee the development and integration of a state physical activity plan, including development of an implementation/action and evaluation plan, which includes goals, SMART objectives, and strategies.
3.7. Work with evaluators and relevant staff to develop criteria and methods for evaluating physical activity and health education/intervention strategies focusing on environmental, policy, or direct behavior change.
3.8. Plan and implement both process and outcome evaluation using the collection and analysis of quantitative and qualitative data to justify conclusions and disseminate results.
3.9. Communicate theories and mechanisms of policy development, including how political and organizational agendas are set and pursued, to impact public health.

Benchmark 4: Strategically Implement Evidence-Based Intervention Strategies at the Informational, Behavioral and Social, and Environmental and Policy Levels

4.1. Recommend and translate effective intervention strategies to partners and other constituents.

4.2. Coordinate the efforts of local and community organizations (eg, worksites, coalitions, agencies, schools, etc.) to change the local environment to create opportunities for physical activity.

4.3. Educate key stakeholders (participants, partners, implementers, and decision-makers) to influence and effect policy and environmental change.

4.4. Understand and communicate the importance of intervening at multiple levels of a community utilizing the Socio-Ecological Model framework, and advise on evidence-based strategies to impact each of these levels.

Benchmark 5: Develop an Organizational Structure That Facilitates Program Growth and Sustainability (eg, Staffing, Professional Development, Resources, Successful Internal and External Collaborations)

5.1. Coordinate development and implementation of a professional development needs assessment of state and local organizations that address physical activity.

5.2. Prepare a professional development plan, which includes training and ongoing technical support for promoting physical activity.

5.3. Demonstrate knowledge of effective collaboration strategies; including management, technical assistance, facilitation skills, and volunteer retention.

5.4. Network, interact, and collaborate effectively with representatives at all levels of government, public and private institutions, as well as other organizational entities within public health to promote physical activity as an important cross cutting health behavior.

5.5. Manage budgets, understand legislative and department budgetary processes (eg, how funding allocations are made) and the policy effects of budget appropriations, and be a competent steward of public funds.

5.6. Demonstrate knowledge in the roles of federal, state, and local government; the relationship between legislatures, executive agencies, and the courts; and legislative processes at federal, state, and local levels.

5.7. Understand the historical and scientific basis of public health policies and practice to differentiate between advocacy and lobbying, and educate partners to take appropriate action.

5.8. Use knowledge of exercise science and public health concepts, principles, risk factors and diseases associated with physical activity (eg, hypertension, hyperlipidemia, obesity, diabetes, osteoporosis, and cancer) and special concerns related to physical activity (eg, mental health, reproductive health, disability, injury, and chronic diseases) to elevate physical activity as an essential multidisciplinary component within the health department.

5.9. Write and submit grant applications, reports, and manuscripts for professional and other publications, and presentations for programmatic and scientific meetings.