Published in final edited form as:

Am J Prev Med. 2013 May ; 44(5): 431–438. doi:10.1016/j.amepre.2013.02.002.

The U.S. National Physical Activity Plan:

Dissemination and Use by Public Health Practitioners

Kelly R. Evenson, PhD, MS, **Ross C. Brownson, PhD**, **Sara B. Satinsky, MCRP, MPH**, **Amy A. Eyler, PhD**, and **Harold W. Kohl III, PhD**

Department of Epidemiology (Evenson, Satinsky), Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina; Prevention Research Center in St. Louis, Brown School (Brownson, Eyler), and Division of Public Health Services and Alvin J. Siteman Cancer Center, School of Medicine (Brownson), Washington University in St. Louis, St. Louis, Missouri; Division of Epidemiology (Kohl III), Human Genetics and Environmental Sciences, University of Texas Health Science Center at Houston, School of Public Health, Houston, and Department of Kinesiology and Health Education (Kohl III), University of Texas at Austin, Austin, Texas

Abstract

Background—The 2010 U.S. National Physical Activity Plan contains a comprehensive set of policies, programs, and initiatives to increase physical activity.

Purpose—To determine the early awareness, use, diffusion, and implementation of the plan among members of the National Society of Physical Activity Practitioners in Public Health.

Methods—The web-based survey was conducted in 2011 and analyzed in 2011–2012. The survey was guided by the Reach, Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) framework and Diffusion of Innovations theory. Of 492 professional members, 291 responded.

Results—Overall, 79% reported awareness of the plan, with higher odds among state practitioners compared to other practitioners and among those with state partnerships to address physical activity compared to those without. Among those who were aware (*n*=230), 15% reported using the plan ≥6 times, while 28% had never used it. For those who referred to the plan at least once in their work (*n*=165), the most commonly reported uses were for brainstorming and discussion (73%); development and implementation of activities (55%); and state-level goal-setting (34%). Related to diffusion principles, many respondents reported that the plan fit their organization's goals (85%) and was easy to understand (81%), yet fewer agreed that changes made after the plan were easy to observe (32%); easy to implement (28%), and low-cost (25%).

Address correspondence to: Kelly R. Evenson, 137 East Franklin Street, Suite 306, University of NC, Gillings School of Global Public Health, Department of Epidemiology, Chapel Hill NC 27514. kelly_evenson@unc.edu.

No financial disclosures were reported by the authors of this paper.

Conclusions—This theory-based evaluation found that the National Physical Activity Plan has been broadly disseminated to physical activity practitioners working in public health. Opportunities exist for public health practitioners and others to more fully integrate the plan into their work.

Introduction

There is an extensive gap between the development of public health knowledge through research and its subsequent dissemination.[1] National plans are one way to aggregate state-of-the-science research and disseminate it to practitioners in a particular region or country. In the case of physical activity, several countries have developed plans intended to increase population levels of physical activity; however, the resulting documents often lack clear guidance regarding evaluation.[2,3] Moreover, these plans infrequently discuss the extent to which they reach the target audience, their implementation, and impact on practice. Plan authors miss an opportunity to receive feedback from users to further improve the plan through revision.

In 2008, the DHHS released the first-ever comprehensive federal physical activity guidelines, providing evidence-based guidance about the types and amounts of physical activity that yield substantial health benefits.[4] In 2010, a committee comprised of representatives from nonprofit organizations, academia, and government agencies released the first-ever U.S. National Physical Activity Plan (NPAP), outlining population-based strategies to increase physical activity.[5] A number of organizational partners donated money to help launch the plan and served on the NPAP Coordinating Committee.[6]

Media outlets promoted the launch, and organizational partners were encouraged to promote the NPAP through their respective networks. In May 2010, a group led by the National Coalition for Promoting Physical Activity released an implementation plan focused on eight sectors to guide initial efforts.[7] On release of the implementation plan, six of eight sectors organized in workgroups and began meeting regularly to discuss sector goals.

As part of the NPAP evaluation, the current authors surveyed members of the National Society of Physical Activity Practitioners in Public Health (NSPAPPH), a professional organization focused on increasing the capacity of physical activity practitioners in public health and elevating physical activity in public health practice at national, state, and local levels through professional development.[8,9] The current article provides results of a survey to determine members' early awareness of the NPAP, use and dissemination of the plan, its integration with state plans, its implementation, and barriers to diffusion, as well as their awareness of the separate implementation plan. The current authors also examined whether characteristics derived from Diffusion of Innovations theory were associated with greater plan use and implementation.[10]

Methods

The current authors developed a questionnaire for NSPAPPH members, guided by the Reach, Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) framework[11] and Diffusion of Innovations theory,[10] (Appendix A, available online at www.ajpmonline.org).

Surveys were completed in 2011; analyses were conducted in 2011–2012. Overall, 59% (291/492) of members completed the survey.

A diffusion score and implementation score were developed from 13 and four survey items, respectively, with Cronbach's alpha calculated to determine internal consistency. Unconditional logistic regression explored covariates associated with awareness and use of the NPAP. In these models, the following variables were tested: physical activity practitioner; university affiliation; education; state partnership to address physical activity; work role (state, local, other); and census region. Significant variables and covariates that contributed to the fit of the model were retained. The final models included education, state partnership, and work role.

Linear regression was used to explore whether diffusion scores were associated with both implementation, and whether leadership encouraged NPAP use. Test–retest reliability of the awareness and use survey items were assessed using percentage agreement. All analyses were conducted using SAS, version 9.1.3.

Results

Sample

Among the 291 respondents, 25% reported being a physical activity practitioner for ≥10 years, and 34% did not consider themselves physical activity practitioners (Appendix B, available online at www.ajpmonline.org). Participants represented each of the four U.S. census regions, with the South most represented (34%).

Awareness, Use, Dissemination, and State Plans

Overall, 79% of respondents were aware of the NPAP (Table 1). Adjusted odds of plan awareness were twice as high if the respondent's organization had a state partnership to address physical activity compared to those without (OR=2.3; 95% CI=1.1, 4.8), and three times as high if the respondent had a state work role (OR=3.0; 95% CI=1.3, 7.1), but not a local work role (OR=1.2; 95% CI=0.5, 3.0), compared to other types of work roles (data not shown). Among those aware of the plan (*n*=230), 11% participated at the national level with a sector committee. Most respondents aware of the plan learned about it through e-mail (78%) or websites (55%). Almost half (46%) of those aware of the plan learned about it ≥1 year prior. Reliability of these items ranged from 74% to 97% agreement.

Among respondents aware of the plan, 15% used it ≥6 times; 28% reported never using it (Table 1); and the adjusted odds of using it at least once were almost three times higher if the respondent had a state work role (OR=2.9; 95% CI=1.2, 7.1), but not a local work role (OR=0.5; 95% CI=0.2, 1.3), compared to other types of work roles (data not shown). For those who referred to the NPAP at least once (*n*=165), the most common uses were for brainstorming and discussion (73%), followed by development or implementation of activities (55%). The plan was used less at the local level than at the state level. Reliability of these items ranged from 58% to 96% agreement.

Almost half of the respondents agreed that leadership and intervention staff at their organization were aware of the NPAP (47% and 49%, respectively; Table 2). Only 24% agreed that leadership at their organization encouraged use of the NPAP, although 44% agreed that their organization easily adopts new physical activity interventions. Fewer agreed that the NPAP was disseminated effectively to practitioners in their state (19%). Agency awareness, encouragement to use the NPAP, and dissemination were all reported more often among state than local practitioners. Overall, almost two thirds (65%) agreed that the NPAP complemented current state plans.

Agency Implementation, Impact, and Evaluation

Approximately two thirds (62%) of respondents agreed that their organization was able to incorporate guidance from the NPAP for physical activity promotion. But only 18% agreed that they had adequate staffing to implement the NPAP; 17% agreed that their organization had adequate monetary resources (Table 2). However, 40% agreed that their organization had funding sources to support implementation of the NPAP recommendations, although fewer local practitioners reported this (23%). Using these four items, an implementation score was created by summing responses from low (1=*strongly disagree*) to high (5=*strongly agree*), and dividing by 4 to scale them. The resulting score was normally distributed with a mean of 2.9; a median of 3.0 (interquartile range: 2.5–3.4); and Cronbach's alpha of 0.73.

Few agreed that the NPAP had changed the direction of their physical activity work (19%); more neither agreed nor disagreed (55%). Almost half (47%) agreed that their organization regularly monitored and improved ongoing physical activity promotion efforts. Agreement that their organization disseminated evaluation findings from physical activity efforts to community groups was reported among 45% of respondents.

Diffusion Characteristics and Implementation Plan

Respondents aware of the plan were asked whether they agreed with statements that reflected 13 characteristics thought to increase the likelihood of diffusion (Table 3). These 13 diffusion characteristics were each scored from low (1=*strongly disagree*) to high (5=*strongly agree*); summed; and divided by 13 for scaling. The diffusion score was normally distributed with a mean and median of 3.5 (interquartile range: 3.2–3.7); and Cronbach's alpha of 0.79. The adjusted odds of using the NPAP were higher as the diffusion score increased, and remained significant when splitting the score at the median (Table 4). Higher diffusion scores (continuous or median split) were also significantly associated with both the implementation score and whether leadership encouraged use of the NPAP. Among the one third (35%, *n*=87) of respondents that were aware of the implementation plan,[7] most learned about it through e-mail (73%) and websites (52%).

Discussion

These data provide insight into early awareness, use, dissemination, integration with state plans, implementation, and barriers to diffusion of the NPAP, as well as awareness of the implementation plan, among public health practitioners since its launch in 2010.

Awareness, Use, and Dissemination

The NPAP's reach to public health professionals was reflected in high awareness (79%), particularly among those who reported state work roles or living in a state with an intersectoral partnership to address physical activity. However, less than 20% agreed that the NPAP was disseminated effectively to practitioners in their state, identifying an area requiring more focused effort. Almost half of respondents agreed that leadership and intervention staff at their organization were aware of the NPAP, but only about one quarter agreed that leadership encouraged use of the plan.

Based on these findings, efforts should be made to promote the NPAP, such as through professional development and training, both with leadership and staff at regional and local levels. Promotional efforts could be guided by state-based professionals, since their awareness of the NPAP was higher. E-mail or listserv announcements were the most common sources for learning about the NPAP, but the website and conferences were also frequently mentioned. In addition, promotional materials that aid dissemination to a more local audience might be useful in spreading the NPAP. Also, with staff turnover, awareness may dissipate unless continued efforts are made to promote the plan.

Transfer of the NPAP from the national organization to the practitioner can be one-way (i.e., the NPAP being disseminated to practitioners but feedback from practitioners to the national organization does not occur) or two-way (i.e., there is a feedback loop). To assess this, practitioners were asked in the current study if they had provided feedback to the NPAP planning group since it was launched. Only 12% agreed, indicating that there has been a primarily one-way transfer to date, consistent with the initial national-level activities related to the NPAP.

Other research[12] has found that collaboration between two groups can contribute to more-effective program transfer. Therefore, it would be advantageous to create more two-way communication between the national organization and practitioners using the plan, which is envisioned as a "living document" to be updated regularly. Two-way communication could include allowing feedback through the plan website or systematically gathering information from users of the plan.

Most of the NPAP identifies sector-based strategies and tactics to increase physical activity in the U.S. Among the public health practitioners that used the plan, more than half did so for brainstorming and discussion, or for development and implementation of activities. To increase uptake of the NPAP, it is important to account for barriers to use of evidence-based approaches, particularly those related to lack of time, inadequate funding, and the need to better package and translate research to policy.[13–17] Highlighting uses of the NPAP through case studies and briefs may increase uptake, particularly at the local level. Approximately one third of respondents reported using the NPAP for training. The national organization could generate supplementary materials to promote this use further, a particularly important tactic for staff turnover.

Integration with State Plans

Almost two thirds of respondents agreed that the NPAP complemented current state plans on physical activity, obesity, and related chronic conditions. State plans are updated on a regular basis, and most states have a plan that incorporates physical activity,[18] forming an opportunity to align state goals, strategies, and tactics with the NPAP. This guidance could be incorporated through materials designed to assist with developing state plans.

Among people who used the NPAP, fewer reported using it for goal-setting. One possible reason is that they instead rely on a state plan for goal-setting. The majority of state obesity plans that included physical activity goals were adopted by states in 2005 (range 2002–2010),[18] so goals and strategies may have been set prior to the NPAP release. This timing also may explain why fewer agreed that the NPAP had changed the direction of their physical activity work.

Agency Implementation, Impact, and Evaluation

The majority of practitioners reported working in agencies without staff or funding to dedicate to NPAP implementation. Since lack of physical activity is a risk factor for many chronic diseases, there is an opportunity to pool resources from disease-specific divisions and departments to facilitate implementation of NPAP goals and strategies. Increasing the perceived relevance of the NPAP and its prioritization among division leadership is key. There is also an opportunity to monitor the goals and strategies that co-exist between state plans and NPAP to enhance evaluation efforts.

Diffusion Characteristics

Knowledge of key barriers to plan uptake could help speed dissemination and adoption of the NPAP.[19] In the current study, respondents were systematically asked about several key items known to affect the speed and extent to which dissemination occurs, taken from the Diffusion of Innovations theory.[10,12] Plans with less *complexity* can be more easily communicated. Although 81% of respondents indicated that the NPAP was easy to understand, only 28% reported that it was *easy to implement*. This gap from understanding to implementation should be addressed to assist in plan uptake. Diffusion could be enhanced by plans supported by research, and the majority of respondents (82%) agreed that the NPAP was evidence-based.

The *compatibility* of the NPAP with the current environment can enhance its uptake as well, and overall 85% agreed that the NPAP fit with their organization's mission and goals; 67% agreed that it was consistent with their organization's work. NPAP dissemination can be enhanced if it displays *flexibility*, and 64% agreed it could be subdivided to promote ease of use. This flexibility could be enhanced by creating products that take the overarching document and break it up by sector or strategy. The less uncertainty or risk about the results, the more likely it will be disseminated. Overall, 58% agreed that the NPAP was low-risk. An area for further exploration is to examine what elements were perceived as risky.

Reversibility indicates that incorporation of the NPAP could be stopped if it is not working, and the prior approach could be resumed. About half (47%) agreed that the NPAP could be

tried fully without committing to it, and 44% agreed that their organization could revert to prior strategies if the NPAP were not working. Similarly, *trialability* indicates that the NPAP can be tried without fully committing to it, and 47% agreed with this statement. With regard to *observability*, only 32% agreed that changes could be easily observed, and 27% indicated that satisfaction could be easily gauged with the NPAP. Developing companion evaluation metrics for each NPAP strategy/tactic may help to ameliorate these concerns. These are areas to address for improved dissemination.

Only 25% agreed that the NPAP was low-cost. It would be useful to understand the specific funding issues identified as barriers to using the NPAP, although another survey[20] of state and territorial health departments has shown that funding for physical activity is of concern. Perhaps the next phase of implementation could include creative ways to incorporate the NPAP into activities without taxing staff and requiring more funding. Possibilities include promoting the plan as one that can align with planned goals and activities, and promoting new and transdisciplinary relationships to identify overlapping goals and pool resources.

Finally, the *relative advantage* was low, with only 13% agreeing that positive changes occurred as a result of implementing the NPAP. The goal in the current study was to evaluate early changes due to the plan. Time from plan launch (2010) to survey completion (2011) was 13–15 months, which may have been insufficient for substantial changes to occur; repeated survey assessment can help determine if more changes happen over longer periods. Highlighting early positive changes could help others in putting the plan into practice.

Implementation Plan

Awareness of the NPAP implementation plan, called “Make the Move,”[7] was much lower (35%) than awareness of the NPAP. There is substantial opportunity to promote the implementation plan, particularly if it is updated, and doing so could address the concern that the NPAP was difficult to implement, particularly without funds. Promoting implementation success stories across sectors of the NPAP and how they could be replicated may highlight feasibility of implementation.[21] For example, the education sector’s goal of “providing access to physical activity before and after school” complements the parks, recreation, fitness, and sports sector’s goal of “providing access to safe and affordable places” to be active. In this case, for example, a statewide joint-use policy between schools and parks can promote cross-cutting implementation, although such an approach makes measurement of implementation complex.

Strengths and Limitations

To our knowledge, this is one of the first evaluations of a national physical activity plan. It also is unique in using a theory-based approach toward evaluation seeking to address the gap between research and dissemination. The survey provides important perspectives from practitioners; however, it is noteworthy that public health is one of eight sectors on which the NPAP focuses. Further efforts are needed to understand uptake and use by other sectors. The survey’s comprehensive nature was a strength, providing input from a national

perspective and including representatives from across the U.S. who work at different levels (e.g., national, state, local).

These data are cross-sectional, but they can provide a baseline for further evaluation. Comments on the survey indicated that several members with national-level jobs had difficulty answering some questions. Future iterations should guide national members to answer by reflecting on the state where they live. Questions could also be tailored to state and local practitioners, since awareness and use varied between the two. Awareness of the NPAP may have been over-reported, since the survey focused on the NPAP and provided a link to the document. Lastly, to assess selection bias, respondents were compared to nonrespondents by U.S. census region, and no differences were found. It is not known if there were important differences between respondents and nonrespondents on other factors, such as type of job or awareness of the NPAP, since this information was not available for nonrespondents.

Conclusion

The U.S. National Physical Activity Plan has been broadly disseminated to physical activity practitioners working in public health. Higher NPAP awareness and use was found among state practitioners in comparison to local practitioners. Opportunities for improvement include more active and targeted dissemination to help more practitioners become aware of the NPAP, particularly at the local level, and guidance on ways practitioners can incorporate the NPAP into both their own work and state plans.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

The authors thank Fang Wen for her input on the statistical analysis and the anonymous reviewers for their helpful comments. This work was supported by Cooperative Agreement #U48/DP001903 from the CDC, Prevention Research Centers Program, Physical Activity Policy Research Network. The authors thank the National Physical Activity Plan Coordinating Committee and the National Society of Physical Activity Practitioners in Public Health for their input in this process. The content is solely the responsibility of the authors and does not necessarily represent the official views of the CDC.

References

1. Brownson, R.; Colditz, G.; Proctor, E. Dissemination and Implementation Research in Health: Translating Science to Practice. New York City, NY: Oxford University Press; 2012.
2. Bornstein DB, Pate RR, Pratt M. A review of the national physical activity plans of six countries. J Phys Act Health. 2009; 6(Suppl 2):S245–264. [PubMed: 20120133]
3. Daugbjerg SB, Kahlmeier S, Racioppi F, et al. Promotion of physical activity in the European region: content analysis of 27 national policy documents. J Phys Act Health. 2009; 6(6):805–817. [PubMed: 20101924]
4. DHHS. 2008 Physical Activity Guidelines for Americans. Washington, D.C: ODPHP; 2008. Publication No. U0036. www.health.gov/paguidelines/
5. National Physical Activity Plan: Partners. 2012. www.physicalactivityplan.org/partners.php

6. Bornstein D, Carnoske C, Tabak R, Maddock J, Hooker SP, Evenson KR. Factors related to partner involvement in development of the U.S. National Physical Activity Plan. J Public Health Management Practice. 2013 In press.
7. National Coalition for Promoting Physical Activity. Make the Move: 2010–11 National Implementation of the US Physical Activity Plan. Washington D.C: 2010. www.nxtbook.com/nxtbooks/ncppa/make_the_move/index.php
8. Kimber C, Abercrombie E, Epping JN, Mordecai L, Newkirk J Jr, Ray M. Elevating physical activity as a public health priority: creation of the National Society of Physical Activity Practitioners in Public Health. J Phys Act Health. 2009; 6(6):677–681. [PubMed: 20101909]
9. Newkirk J. The NSPAPPH: answering the call. J Phys Act Health. 2010; 7(Suppl 1):S7–S8. [PubMed: 20440016]
10. Rogers, E. Diffusion of Innovations. New York: Free Press; 1983.
11. Glasgow R, Klesges L, Dzewaltowski D, Estabrooks P, Vogt T. Evaluation of the overall impact of health promotion programs: using the RE-AIM framework to form summary measures for decision making involving complex issues. Health Educ Res. 2006; 21:688–694. [PubMed: 16945984]
12. King L, Hawe P, Wise M. Making dissemination a two-way process. Health Promotion. 1998; 13(3):237–244.
13. Jacobs JA, Clayton PF, Dove C, et al. A survey tool for measuring evidence-based decision making capacity in public health agencies. BMC Health Serv Res. 2012; 12(1):57. [PubMed: 22405439]
14. Jacobs JA, Dodson EA, Baker EA, Deshpande AD, Brownson RC. Barriers to evidence-based decision making in public health: a national survey of chronic disease practitioners. Public Health Rep. 2010; 125(5):736–742. [PubMed: 20873290]
15. Baker EA, Brownson RC, Dreisinger M, McIntosh LD, Karamehic-Muratovic A. Examining the role of training in evidence-based public health: a qualitative study. Health Promot Pract. 2009; 10(3):342–348. [PubMed: 19574586]
16. Dobbins M, Cockerill R, Barnsley J, Ciliska D. Factors of the innovation, organization, environment, and individual that predict the influence five systematic reviews had on public health decisions. Int J Technol Assess Health Care. 2001; 17(4):467–478. [PubMed: 11758291]
17. Maylahn C, Bohn C, Hammer M, Waltz EC. Strengthening epidemiologic competencies among local health professionals in New York: teaching evidence-based public health. Public Health Rep. 2008; 123(Suppl 1):35–43. [PubMed: 18497017]
18. Eyler A, Chriqui J, Maddock J, Cradock AL, Evenson KR, Gustat J, Hooker S, Lyn R, O'Hara Tompkins N, Zieff SG. Opportunity meets planning: An assessment of the physical activity emphasis in state obesity-related plans. J Phys Act Health. 2013 In press.
19. Briss PA, Brownson RC, Fielding JE, Zaza S. Developing and using the Guide to Community Preventive Services: lessons learned about evidence-based public health. Annu Rev Public Health. 2004; 25:281–302. [PubMed: 15015921]
20. Brownson RC, Ballew P, Dieffenderfer B, et al. Evidence-based interventions to promote physical activity: what contributes to dissemination by state health departments. Am J Prev Med. 2007; 33(1 Suppl):S66–73. [PubMed: 17584593]
21. Stamatakis KA, McBride TD, Brownson RC. Communicating prevention messages to policy makers: the role of stories in promoting physical activity. J Phys Act Health. 2010; 7(Suppl 1):S99–107. [PubMed: 20440020]

Table 1

Awareness, use, and dissemination of the NPAP

	n	%	Missing
Overall	291		
Aware of the NPAP	230	79.0	0
AMONG THOSE THAT WERE AWARE OF THE NPAP	230		
Learn about the NPAP (yes)			
E-mail or listserv announcement	174	78.0	7
Website	116	54.5	17
Conferences or talks	116	53.2	12
Other	51	24.9	25
When did you learn about NPAP			2
In the past month	26	11.4	
2–<6 months ago	45	19.7	
6–<12 months ago	52	22.8	
≥12 months ago	105	46.1	
Participated at the national level with any sector committee (yes)	21	10.9	38
How many times did you refer to NPAP			2
0	63	27.6	
1	39	17.1	
2–3	66	28.9	
4–5	26	11.4	
≥6	34	14.9	
How has the NPAP been disseminated in your state?			
E-mail or listserv announcement	127	69.4	47
Website	86	49.4	56
Conferences or talks	85	48.9	56
Other	14	8.4	63
Have you provided feedback to the NPAP planning group since it was published in 2010?			
Yes	24	12.2	33
Among those that referred to the plan 1 or more times (*n*=165)			
How have you used the plan (yes)			
Goal-setting at state level	55	33.7	2
Goal-setting at local level	37	23.7	9
Individual program, project, or initiative at the state level	53	33.1	5
Individual program, project, or initiative at the local level	45	28.7	8
Development or implementation of activities	87	55.4	8
Grant writing	40	25.2	6
Brainstorming or discussion	115	72.8	7

	n	%	Missing
Training	52	32.5	5
Other	32	20.8	11

State practitioners were defined as those who responded yes to being a state-level physical activity practitioner/lead coordinator or a state health department employee. Local practitioners responded yes to being a

NPAP, National Physical Activity Plan

Table 2

Agency attitudes towards the NPAP among those aware of the plan (n=203)[a]

Reflecting on your organization/workplace and work that pertains to physical activity	Strongly agree/agree, %	Neither agree nor disagree, %	Disagree strongly/disagree, %	Missing
Agency Awareness				
Leaders at my organization are aware of the NPAP.	47.3	29.1	23.6	0
Intervention staff members at my organization are aware of the NPAP.	49.3	30.5	20.2	0
Agency Adoption				
Leaders at my organization encourage the use of the NPAP.	24.3	34.7	41.1	1
My organization easily adopts new interventions to promote physical activity.	43.7	34.2	22.1	4
Agency Dissemination				
The NPAP is being disseminated effectively to physical activity practitioners in my state.	18.5	49.0	32.5	3
Integration with State Plans				
The NPAP complements our current state plans (including physical activity, obesity, chronic disease).	65.2	31.3	3.5	5
Implementation				
My organization is able to incorporate guidance from the NPAP for physical activity promotion.	62.4	31.0	6.6	6
My organization has adequate staffing to implement the NPAP.	17.6	26.9	55.4	10
My organization has adequate monetary resources to implement the NPAP.	17.1	27.5	55.4	10
My organization has one or more funding sources to support the implementation of recommendations in the NPAP.	40.2	29.4	30.4	9
Impact				
The NPAP has changed the direction of the work that I do related to physical activity.	18.8	54.5	26.7	1
Evaluation				
My organization conducts regular evaluation to monitor and improve ongoing physical activity promotion efforts.	47.2	24.1	28.7	8
My organization disseminates evaluation findings from physical activity efforts to community groups.	45.3	30.2	24.5	11

[a] 27 were excluded due to missing the entire section

NPAP, National Physical Activity Plan

Table 3

Attitudes towards the NPAP as they pertained to their organization or workplace among those aware of the plan (n=195)[a]

(Diffusion construct) Reflecting on your organization/workplace and work that pertains to physical	Strongly agree/agree, %	Neither agree nor disagree, %	Disagree strongly/Disagree, %	Missing
(compatibility with organization) The NPAP fits with my organization's mission or goals.	84.7	15.3	0.0	6
(evidence-based) The NPAP uses an evidence-based approach to making recommendations.	82.1	17.4	0.5	0
(complexity) The NPAP is easy to understand.	81.0	14.4	4.6	0
(compatability with current activities) The NPAP is consistent with what we were already doing at my organization.	67.0	29.4	3.6	1
(flexibility) The NPAP can be subdivided in order to use.	64.4	35.1	0.5	1
(risk) The NPAP is low-risk to implement.	58.3	39.6	2.1	3
(trialability) The NPAP could be tried without fully committing to it.	46.6	44.4	9.0	6
(reversibility) My organization can revert to previous strategies if the strategies taken from the NPAP are not working.	44.0	52.8	3.1	2
(observability of changes) The changes made by implementing the NPAP can be easily observed.	32.3	52.9	14.8	6
(ease of implementation) The NPAP is easy to implement.	27.5	53.9	18.7	2
(observability of satisfaction) Satisfaction with the NPAP can be easily gauged.	26.6	55.9	17.6	7
(cost) The NPAP is low-cost to implement.	24.9	51.3	23.8	6
(relative advantage) Positive changes have occurred in my state as a result of implementing the NPAP.	12.9	70.6	16.5	1

[a] 35 were excluded due to missing the entire section

NPAP, National Physical Activity Plan

Table 4

Association of diffusion score with use of NPAP, implementation, and leadership encouraging use among those aware of the NPAP (*n*=230)

	Outcome: Use of NPAP (*yes or no*) OR (95% CI)	**Outcome: Implementation score[a] (continuous) Beta (95% CI)**	**Outcome: Leadership encourages use of the NPAP (continuous) Beta (95% CI)**
Diffusion score[b]: continuous	3.9 (1.2, 12.6)	1.1 (0.8, 1.3)	1.0 (0.5, 1.4)
Diffusion score[b]: ≥median vs <median	2.5 (1.2, 5.4)	0.6 (0.4, 0.8)	0.5 (0.1, 0.8)

Note: In these models, the following variables were tested as potential confounders to the diffusion score: physical activity practitioner (>=10 years of experience, <10 years of experience, none); affiliation with a university (*yes/no*); graduate school completion (*yes/no*); state partnership to address physical activity (*yes/no*); work role (state, local, other); and census region (Midwest/West, South/Northeast). Final models in this table control for state partnership to address physical activity and work role.

[a]The four survey items contributing to the implementation score related to the organization's ability to incorporate NPAP guidance and having adequate staffing, monetary, and funding resources to implement the NPAP.

[b]NPAP characteristics making up the diffusion score included complexity, ease of implementation, evidence-based, compatibility with organization, compatibility with current activities, flexibility, risk, reversibility, trialability, observability of changes, observability of satisfaction, cost, and relative advantage. The median of the diffusion score was 3.5.

NPAP, National Physical Activity Plan