Community Preventive Services Task Force

Campaigns and Informational Approaches to Increase Physical Activity: Stand-Alone Mass Media Campaigns

Task Force Finding and Rationale Statement

Intervention Definition

Stand-alone mass media campaigns are national, state, or local interventions that use varied mass media channels to deliver messages about physical activity to large, and sometimes targeted, audiences. They are designed to motivate and support physical activity among their intended audiences by producing changes in knowledge, attitudes, and beliefs about the benefits of physical activity, and by increasing motivation and social support for behavior change. Messages may be transmitted using a variety of formats, such as newspapers, radio, television, billboards, electronic media, websites, or promotional activities. Stand-alone mass media campaigns are distinct from mass media efforts employed as part of broader multiple-component interventions that also incorporate individually oriented health behavior change programs and activities, social support networks, environmental, or policy changes.

Task Force Finding (March 2010)

The Community Preventive Services Task Force concludes there is insufficient evidence to determine the effectiveness of stand-alone mass media campaigns to increase physical activity at the population level. Sixteen eligible studies that evaluated stand-alone mass media campaigns of varied intensity and duration (i.e., 1 week to 5 years), targeting varied populations, using diverse control and comparison conditions and diverse physical activity outcome measures, found modest and inconsistent effects.

Rationale

The Task Force finding is based on evidence from a Community Guide systematic review published in 2001 (search period 1980-2000) combined with more recent evidence (search period 2000-2009). The Task Force finding of insufficient evidence to determine effectiveness of this intervention remains unchanged.

The Task Force considered evidence from a total of 16 studies published between 1980 and 2009 that were of good or fair quality of execution (8 studies with greatest suitability of design, and 8 single group before-after studies of least suitable design). The evaluated campaigns targeted a variety of populations including youth, parents, adults, and older adults, and disseminated media messages in communities, across states, and at the national level (i.e., VERB in the United States). The campaigns relied mainly on traditional forms of mass media (print, television, radio, and billboard) rather than newer media such as the Internet, and did not use mobile phone messaging, or social media channels and sites.

Campaign effects on physical activity levels were assessed using a variety of self-report measures with follow-up intervals ranging from 6 weeks to 4 years. Ten studies using comparable outcome measures, documented a median absolute increase of 3.4 percentage points in self-reported physical activity levels (interquartile interval [IQI]: -0.6 to +5.7 percentage points), and a median relative increase of 6.7% (IQI: -1.6% to +14.1%). The remaining six studies used different outcome measures: three evaluated changes in self-reported time spent in physical activity (median relative change of 4.4% and a range of values from 3.1%, 18.2%); and the other three studies employed dissimilar self-report measures that showed only modest increases in physical activity or time spent in physical activity. Overall, the Task Force found no evidence of harms from the stand-alone mass media campaigns evaluated.

The stand-alone mass media campaigns evaluated in these 16 studies varied not only in their length and intensity but also in critical aspects of their planning and delivery. They employed varied types, numbers and combinations of media channels (e.g., television, radio, newspapers, and billboards). Campaigns varied in cost, and and in the number and types of design elements used in their planning and delivery (i.e., use of theory to guide the intervention, use of formative research, process evaluation, message design and testing, audience segmentation, and tailoring of messages through appropriate channels to reach the intended audiences). When studies were stratified and compared based on the total number of these design elements used, the four studies that used 5-6 of the campaign design elements appeared to be associated with greater increases in physical activity (median relative change of 28.3%, range of values 4.7%, 56.5%) than studies that used four or fewer (median relative change of 3.1%, range of values -8.0%, 5.4%). However, it should be noted that this association was indicated in a very small number of studies having large variability.

Self-report measures of physical activity are generally viewed as having adequate validity and reliability for studies of population-level interventions and to be well suited for collecting data from large numbers of people at low cost (Sallis & Salens, 2000). However, the self-report measures used in the 16 studies reviewed varied considerably in documentation of their validity and reliability, and in their comprehensiveness and meaningfulness to public health. They ranged from a single question asking respondents whether awareness of the campaign increased their physical activity behavior, to more comprehensive assessments of the type, intensity, frequency, and duration of weekly physical activity.

This update focused only on stand-alone mass media campaigns as defined in the previous review (Kahn, et al., 2002; Task Force on Community Preventive Services, 2005), which also found insufficient evidence. For this review, the Task Force did not consider evidence for mass media campaigns when used as part of broader multicomponent community, state, or national physical activity promotion interventions. The Task Force also did not include interventions that used the Internet, mobile devices, or social networking media (e.g., Facebook, MySpace, Twitter, blogs, etc.) as the primary intervention. These newer media are likely to play a larger role in future mass media and multicomponent physical activity promotion interventions.

References

Kahn EB, Ramsey LT, Brownson R, et al. The effectiveness of interventions to increase physical activity: a systematic review. *Am J Prev Med* 2002;22(4S):73-107.

Sallis J, Salens B. Assessment of physical activity by self-report: status, limitations, and future directions. Research Quarterly for Exercise and Sport 2000;712:1-14.

Task Force on Community Preventive Services. Physical activity. In: Zaza S, Briss PA, Harris KW, eds. *The Guide to Community Preventive Services: What Works to Promote Health?* Atlanta (GA): Oxford University Press;2005:80-113 (Out of Print).

Publications

Brown DR, Soares J, Epping JM, Lankford TJ, Wallace JS, Hopkins D, Ramsey Buchanan L, Orleans CT, Community Preventive Services Task Force. Stand-alone mass media campaigns to increase physical activity. A Community Guide updated review. *Am J Prev Med* 2012;43(5):551–61.

Community Preventive Services Task Force. Stand-alone mass media campaigns to increase physical activity. Updated findings from the Community Preventive Services Task Force. *Am J Prev Med* 2012;43(5):562–4.

Disclaimer

The findings and conclusions on this page are those of the Community Preventive Services Task Force and do not necessarily represent those of CDC. Task Force evidence-based recommendations are not mandates for compliance or spending. Instead, they provide information and options for decision makers and stakeholders to consider when determining which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.

Document last updated January 23, 2014

Suggested Citation:

The Community Preventive Service Task Force (CPSTF). *Campaigns and Informational Approaches to Increase Physical Activity: Stand-Alone Mass Media Campaigns.* The Community Guide [www.thecommunityguide.org]. The Community Preventive Service Task Force, Atlanta, Georgia, 2010. https://doi.org/10.15620/cdc/168571