

Recommendation for Use of Point-of-Decision Prompts to Increase Stair Use in Communities

Task Force on Community Preventive Services

Introduction

Overweight and obesity remain major health concerns in the U.S. and elsewhere. Obesity increases the risk of many diseases and health conditions including coronary heart disease, type 2 diabetes, a range of cancers (e.g., endometrial, breast, and colon), hypertension, dyslipidemia (e.g., high total cholesterol or high levels of triglycerides), stroke, liver and gallbladder disease, sleep apnea and respiratory problems, osteoarthritis, and gynecologic problems (abnormal menses, infertility). While regular physical activity improves aerobic capacity, muscular strength, body agility and coordination, and metabolic functioning, and is associated with enhanced health and reduced risk for all-cause mortality, maintaining energy balance (defined as the balance between energy taken in and energy expended) is also important in achieving and maintaining a healthy weight and overall health.¹⁻⁴

One way to increase energy expenditure, and improve energy balance, is to incorporate small bouts of physical activity into daily routines.³ According to the CDC, environmental and policy interventions to promote physical activity are important because they can benefit all people exposed to the environment rather than focusing on changing physical activity behavior one person at a time. The use of point-of-decision prompts (PODP) to increase the use of stairwells is one intervention of this type.⁵

In 2002, the *Guide to Community Preventive Services* (the *Community Guide*) published recommendations on evidence-based practices to increase physical activity in communities. Because there has since been a substantial increase in available literature and interest in the applicability of some findings to worksite settings, this report provides an update on the 2002 *Community Guide* recommendation to use PODPs to increase stair use.⁶ The current recommendation and the earlier one represent

the work of the independent, nonfederal Task Force on Community Preventive Services (the Task Force). The Task Force is developing the *Community Guide* with the support of the USDHHS in collaboration with public and private partners. The CDC provides staff support to the Task Force for development of the *Community Guide*.

Task Force recommendations are based primarily on the effectiveness of interventions as determined by a systematic literature review process and through methods employed in evidence reviews for the *Community Guide*.⁷ In making recommendations, the Task Force balances information about the effectiveness of an intervention with information about other potential benefits and potential harms. To determine how widely a recommendation should apply, the Task Force also considers the applicability of the intervention in various settings and populations. Finally, for interventions found to be effective, the Task Force reviews economic analyses and summarizes applicable barriers to intervention implementation. Economic information is provided to assist policymakers in making decisions, but it generally does not affect the Task Force's recommendation on effectiveness.

The Task Force evaluated the evidence on effectiveness for use of PODP to increase stair use. Detailed findings from this evaluation appear in the accompanying evidence review article.⁸

Intervention Recommendations

Point-of-decision prompts alone: Recommended. PODPs are motivational signs placed on or near stairwells or at the base of elevators and escalators to encourage individuals to increase stair use. These signs inform individuals about a health or weight-loss benefit from taking the stairs and remind individuals already predisposed to becoming more active, for health or other reasons, about an opportunity at hand to do so.

The use of PODPs may be combined with other environmental changes such as the placement of footprints as a pathway from the POPD poster to the stairwell. For the PODP review, this type of environmental change was considered a secondary prompt (and thus not a separate

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intervention) that may serve to enhance the sign used in the intervention, and thus it was not examined separately.

The Task Force identified 13 studies qualifying for the primary review of PODP. The Task Force recommends the use of PODP on the basis of strong evidence of its effectiveness in moderately increasing levels of physical activity, as measured by an increase in the percentage of people choosing to take the stairs rather than an elevator or escalator.

This intervention has been shown to be effective in a range of settings and a variety of population subgroups. Findings from several of the studies included in this review suggested that tailoring the prompts either by specifying the benefits of stair use or by customizing the sign to appeal to specific populations may increase intervention effectiveness. No notable harms or other potential benefits were reported, and no qualifying economic information was identified from the literature.

Point-of-decision prompts with stairwell enhancements: Insufficient evidence to determine effectiveness. The PODP review also examined the effectiveness of studies of additional interventions (e.g., modifying and enhancing stairwells through painting walls, laying carpet, adding artwork, or playing music, or some combination of these) that may increase the effectiveness of PODPs by making stair use a more appealing option. The Task Force identified two qualifying studies for the secondary review of stairwell enhancements when combined with PODPs. Due to the small number of studies, there was insufficient evidence to determine the effectiveness of this intervention.

Interpreting and Using the Findings

Physical activity has many positive benefits. As noted above, even small amounts of physical activity, when repeated frequently, can help maintain an energy balance. Choosing interventions that are well matched to local needs and capabilities, and then carefully implementing those interventions, are vital steps for increasing physical activity at the community level.

The information garnered from this review can be used as part of an effort to promote physical activity in everyday settings or to evaluate existing PODP interventions. Although this recommendation, based on strong evi-

dence, indicated moderate changes in behavior, readers should keep in mind that the interventions were targeted at populations of people rather than at individuals, and that such small changes occurring collectively among populations can amount to important changes in terms of the public's health. In addition, the largest public health benefit of interventions designed to increase physical activity is a result of increased activity among sedentary populations, rather than increased activity among already-active people. Therefore, the interventions, if widely implemented, could benefit the public's health, particularly if implemented as part of a comprehensive effort to increase physical activity.

The names and affiliations of the Task Force members are listed in the front of this supplement, and at www.thecommunityguide.org.

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