Promoting Physical Activity: A Profile of Health Plan Programs and Initiatives

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Abstract

Background: Increasing participation in regular physical activity is essential to reversing some of our nation's most troubling health trends. More than 60% of U.S. adults do not engage in the recommended level of physical activity; of this group, 25% is sedentary. Obesity-related illnesses impose an economic cost on businesses, health care systems, and governments and have become a major cause of preventable deaths in the United States. Only a limited number of articles have been published on health plan initiatives that promote physical activity for their members and in the community at large. The Centers for Disease Control and Prevention, Partnership for Prevention (PFP) and the Blue Cross and Blue Shield Foundation on Health (BCBSFHC) sponsored a study of health plans' efforts to promote physical activity.

Objectives: The study was designed to identify and profile health plans' physical activity programs, interventions and initiatives geared towards their members as well as the community at large.

Methods: To obtain information on health plans' physical activity initiatives, a survey was developed, piloted, and then conducted in October 2001. Surveys were distributed via e-mail to health plan members of the American Association of Health Plans (AAHP) and the Blue Cross and Blue Shield Association (BCBSA). The surveys were supplemented by in-depth interviews conducted with 40% of the survey responders.

Results: Sixty health plans, representing more than 80 million individual members, responded to the survey, providing information on more than 373 physical activity initiatives. Ninety-two percent of responding health plans integrate physical activity messages into routine services for members (e.g., newsletters, websites and disease management programs), and 50% offer financial incentives for members (e.g., discounts on health clubs and classes). Physical activity is promoted by 85% of responding plans through sponsorship of community races, walks and health fairs, and by 60% through partnerships with community organizations. Nearly all health plan respondents (92%) are motivated to offer physical activity programs to improve member health and to increase member satisfaction (87%); 62% cited reducing long-term health care costs as a motivator.

Conclusion: Most health plan respondents recognize the potential advantages of increased physical activity for their members and the community. Health plans play an active role in promoting physical fitness, in large part by integrating fitness into disease management and communication programs. However, health plans are unlikely to expand the scope of physical activity programs until a compelling business case can be made.

Specifically, health plans want program models that will yield sustained, positive changes in activity levels, health status, and medical costs.

Support for the Project
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Introduction

Increasing participation in regular physical activity is essential to reversing some of our nation's most troubling health trends – including the obesity and diabetes epidemics.[1] Regular moderate physical activity has proven to be beneficial for most people.[2,3] "A growing body of scientific evidence shows that regular physical activity can have a significant primary preventive effect, reduce feelings of depression and anxiety, help control weight, maintain healthy bones and muscles, and promote psychological well-being.[1]" Yet, most (60%) U.S. adults do not engage in the recommended level of physical activity,[4] and almost half of those aged 12 to 22 are not regularly and vigorously active. Moreover, obesity-related illnesses, which are a primary cause of preventable death in the United States, is overtaking[5] tobacco as the chief cause of preventable deaths.[4]

In response to the problem, policy makers have been encouraged to promote physical activity by adapting evidence-based recommendations and guidelines to local needs and opportunities.[6] Moreover, the health care system as a whole has been urged to foster partnerships between health plans, health care providers and community groups in prevention efforts. Health plans (organizations that provide a defined set of benefits to covered members) play a pivotal role in shaping the types and design of services that are provided to covered members. But little has been known about health plans' ability to foster better health by interesting their members and the wider community in physical activities.

Newly emerging interest in physical activity initiatives undertaken by health plans is supported by data linking inactivity, chronic disease and obesity to higher health care expenditures[7]. Hence, Partnership for Prevention (PFP) and the Blue Cross and Blue Shield Foundation on Health Care (BCBSFHC) formed a collaboration of industry associations, policy research groups, and the Centers for Disease Control and Prevention (CDC) to examine the potential for health plans, with support from purchasers, to promote physical activity among enrollees and in community settings.

Purpose

While health plans may be part of a broad-based solution to addressing illnesses related to sedentary behavior, their specific role in promoting physical activity among members and the greater community has not been fully examined, and remains largely unexplored

in the peer-reviewed literature. Can health plans promote physical activity as part of their overall mission? If so, can they do this most effectively by acting independently? Or, is the impact greatest when health plans are part of an expansive community coalition that goes beyond typical health plan activities and includes initiatives to encourage community fitness events and programs in schools, incentives and opportunities for their members to engage in exercise and worksite wellness efforts?

To answer these questions and understand current health plan activities in each of these areas, we conducted a study to gather baseline information on the current initiatives, programs and interventions being utilized by health plans to promote physical activity. Our environmental scan represents an initial attempt to obtain baseline information on health plans' efforts to promote physical activity. We report herein on the literature and guidelines relating to goals for increasing physical activity and a qualitative study that was designed to identify and profile health plan initiated physical activity programs, interventions and initiatives.

Guidelines and goals for increasing physical activity

In 1995, CDC, in conjunction with the American College of Sports Medicine, published recommendations regarding target levels of physical activity.[8] These recommendations emphasized the value of moderate intensity physical activity, as opposed to more formal programs of intense exercise training, and highlighted accumulation of intermittent episodes of physical activity as an appropriate approach.

The U.S. Department of Health and Human Services' Healthy People 2010 established target goals for physical activity, which include[9] increasing the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day from 15% to 30%. Healthy People 2010 also aims to:

- Reduce the proportion of adults who engage in no leisure-time physical activity and increase the proportion of adults who engage in vigorous physical activity;
- Increase the proportion of worksites offering employer-sponsored physical activity and fitness programs[i]; and
- Increase the proportion of trips made by walking and bicycling.

In addition, a variety of health-related organizations have issued practice guidelines and policy statements that include physical activity as a component. These documents, in general, support the CDC guidance and include specific recommendations regarding implementation strategies, or comment on initiating physical activity in specific patient populations.[10,11] Some policy statements call on the health care system to provide access to physical activity information, resources and counseling, use evidence-based protocols to link assessments to intervention and evaluate effectiveness of systems promoting

[i] Current federal tax law permits an exclusion for the value attributable to use of an employer's on-premises health club facility. This exclusion does not extend to payments to a publicly operated facility. Blue Cross and Blue Shield Association Memorandum to Plan Tax Professionals and Tax Advisors, July 31, 2001 from Michael P. O'Keefe, Manager, Plan Tax Services.

physical activity. [12, 13] In addition, many of the recommendations on health promotion[14] suggest increased physician counseling as a fundamental component of physical activity promotion. A population-based survey, however, reported that only 34% of patients reported that they had been counseled about exercise at their last office visit.[15]

Although a case can be made that health plans and their members would be positively affected by fitness-related health benefits, the guidelines do not specifically address the role that health plans should play in promoting physical activity.[4] Yet, the guidelines do suggest multiple opportunities for health plan involvement in various populations with various settings (e.g., children, adults and the elderly in the home, community, and worksite).

Literature review

Only recently have reports about health plans' role in promoting physical activity been published.[16,17,18,19,20] These articles begin to support how a growing body of evidence about physical inactivity (and its associated health care costs, prevalence of morbidity and premature mortality)[21,22,23,24,25,26] could be applicable to a health plan perspective. Also in recent years, strong evidence on worksite health promotion programs have documented the health and productivity benefits for employers.[27,28,29] Cost savings from corporate wellness programs have been reported.[30,31,32,33,23] possibly explaining why 93% of US companies now offer some kind of health promotion program.[34]

The increasing interest in health plan initiatives is supported by data linking inactivity to chronic illnesses from many other perspectives. [1,4,35] A growing body of evidence also documents the correlation between health risks, including physical inactivity, and high health care costs from the employer perspective.[20, 23, 36,37] This is of considerable importance because employers demand for health plan products is a main determinant of what is and is not provided by health plans to members.

Although numerous effectiveness studies appear in the literature, few have occurred in a health plan or managed care environment and even less address the health plans' role in community initiatives to promote physical activity. The exceptions are studies by Pronk et al., [38] which found lower health care costs are associated with physical activity three days per week and Brasure's study associating higher health plan expenditures with physical inactivity.[8]

Methods study design

Our descriptive study included a survey (*Survey on Health Plans Promoting Physical Activity)* and in-depth interviews. The Survey, a brief, primarily qualitative questionnaire, was developed in the summer of 2001 by the BCBSFHC and PFP, with input from CDC. It was pilot tested as both a paper and e-mail survey, and the e-mail approach was found

to provide a higher response rate. The surveys were collected via e-mail and analyzed by BCBSA to streamline data collection and analysis and minimize inter-rater variation.

Survey on Health Plans Promoting Physical Activity

Survey Sample: E-mail surveys were distributed on October 21, 2001, by the American Association of Health Plans (AAHP) and Blue Cross and Blue Shield Association (BCBSA) to their member plans. Recognizing the variability in health plan organizational structure, the e-mailing targeted 260 individuals (170 health plans) with responsibility for preventive and/or health promotion programs in the health plan as indicated by "responsibility" fields in BCBSA and AAHP databases. Because more than one survey was likely to be received by each Plan, the responders collaborated to compile only one response per plan. This strategy was designed to capture information on both community and member initiatives from each responding Plan. One week after the completed surveys were due back, BCBSA sent an E-mail reminder to them to increase the response rate among its members plans. Although part of the survey protocol, not all AAHP member plans received an e-mail reminder.

Data Analysis: Data were coded and entered in Excel spreadsheets. Univariate analysis was performed using SPSS software; other analyses used Excel. Confidence intervals of proportion and cross-tabulations were calculated when possible. Data were analyzed according to: a) whether the initiative was member-based (for health plan enrollees) or community-based (programs that are offered to those who are not enrollees), b) geography, c) health plan type, and d) whether the program had been evaluated.

Outcome Measures: The survey questions were designed to identify the number and type of physical activity programs/initiatives offered by health plans. Outcome measures included "subjective" measures, such as perceived program "success", as well as quantitative data on the number of health plan initiatives and qualitative data on the types of programs evaluated.

In-depth Interviews

Following completion of the e-mail survey, we undertook a series of in-depth interviews to gain a better understanding of initiatives undertaken by health plans to encourage physical activity, and to test the reliability and accuracy of the findings from the survey.

In-depth interview Sample: This sample was drawn from a cross section of respondents to the e-mail survey by categorizing respondents according to four main dichotomies of health plan characteristics. These were defined by: 1) characteristics of the covered population (urban vs. rural populations, homogeneous vs. heterogeneous); 2) market focus (large local accounts vs. national accounts, Medicare/Medicaid vs. entire market); 3) product type (Health Management Organization (HMO) vs. Preferred Provider Organization) PPO vs. indemnity insurer); and 4) resource commitment (large vs. limited preventive budget). Interviewees from different health plans were selected to explore one or more of these dichotomies and to ensure relatively equal representation for geographic regions (northeast, west, south, and midwest). We also selected four plans that reported

no (or few) physical activity programs. Efforts were made to balance non-Blue and Blue plans.

Interview Tool and Protocol: Telephone interview protocol and open-ended questions with prompts for interviewers were developed with PFP and CDC. The interview questions were pilot tested with a health plan member by conference call; the interview protocol was followed. Thirty interviewees were invited by telephone and/or e-mail to participate in a 20- to 40-minute interview. Prior to the interview, each of the interviewees received an introductory statement and a copy of the questions (from which the interview prompts had been deleted).

Twenty-four telephone interviews (80% participation rate) lasting 15 to 60 minutes were conducted with vice presidents of preventive services, senior directors for corporate quality, directors of health promotion and quality management, managers of health management, and a manager of advertising and creative services, among others. Eighteen interviews were conducted in December 2001, with the six outstanding interviews conducted in January and February 2002.

Findings were coded by one individual and reviewed by a senior researcher to limit inter-rater bias. Results were entered into an Excel spreadsheet for analysis.

Results

Survey on Health Plans on Promoting Physical Activity
Sixty health plans responded to the survey, representing more than 62 million enrollees. Thirty-five percent of surveyed health plans responded, however, because of the survey distribution strategy in which more than one survey was sent to a health plan, the actual survey response rate was only 23%.

Fifty-seven percent of survey respondents were BCBSA member health plans and 43% were AAHP member plans. Seventy-one percent of the 42 BCBS plans responded. Not all AAHP member plans received an e-mail reminder, which may explain the relatively lower response rate from AAHP member plans. All geographic areas were well represented by responding plans: northeast = 12; south = 11; midwest = 21; and west = 16. The responding plans reported 373 initiatives.

Concentration of Programs: On average, there were six physical activity programs per plan: four member programs and two community programs. Twenty-six percent of plans reported offering 6 or more physical activity programs to members, while 32% offered three or fewer. Citing marketing and "good citizenship" rationale, most plans (80%) reported offering only one or two physical activity programs for the community, while 25% of respondents offered three, and 12% offered four or more. Only three respondents had no community programs. No apparent differences in program concentration were noted across geographic areas or across plan type with respect to the dichotomies above.

Member Programs to Promote Physical Activity: Nearly all responding health plans (92%) provide educational and informational materials about physical activity to their members. These materials are typically available as a brochure, in a targeted newsletter or on-line. Seventy percent of respondents reportedly utilize their Web site to provide physical activity-related resources for members, such as information on walking programs. In addition, 50% of the plans incorporate physical activity into their chronic disease management. Half of the health plans report providing financial incentives for members to participate (e.g., discounts on health club memberships). Provider incentives to 1) encourage counseling of patients on the value of physical activity, and/or 2) provide exercise prescriptions (the least used method of promoting physical activity), are offered by only 5% (n = 3) of respondents.

Community Programs to Promote Physical Activity: Most (85%) health plans sponsor community races, walks or other physical activities, and 60% partner with community organizations to promote physical activity. Fewer than half of respondents (48%) use the media (e.g., radio spots) to provide health tips on physical activity for the community.

Other Programs: Nineteen (32%) respondents to the e-mail survey indicated that "other" programs were offered to members, and 11 (18%) added comments on "other" programs for the community. Although only 19 responders provided this information, the findings suggest wide diversity across plans and programs. When grouped together by type, other programs most often included financial incentives and/or discounts, followed by fitness programs (e.g., walking clubs), community events for specific populations and Web-based initiatives. Sponsorships and participation in a broad coalition on physical activity/fitness are the most popular strategies at the community level**.**

Evaluation: Of the 240 member and 133 community programs noted in the survey, respondents indicated that health plans evaluated 48. Of those evaluated and identified as being successful, seven programs have been discontinued, including two programs offering incentives to providers.

Motivation for Providing Physical Activity Programs: One question addressed motivations for health plans to provide community as well as member programs. Ninety-two percent of responding health plans offer physical activity programs to improve member health, which was the primary reason cited by 57% of responding plans. The second most frequently cited primary reason, and the most common reason overall, is to improve member satisfaction while reducing long-term care costs.

In-depth interview Interviews

Based on our interview findings, health plan involvement in promotion of physical activity can be broadly described in four categories: 1) general communications to members that encourage physical activity; 2) collaborations with community and worksite programs; 3) physical activity initiatives for members as one component of a broad array of wellness, health promotion or disease management activities; and 4) general communications to providers to encourage counseling on physical activity.

Different motivations and outcomes may be associated with each of these categories. For example, citing intentions to be good corporate citizens, health plans promote physical activity by sponsoring community races, walks and health fairs. They also partner with community organizations. More infrequently, they provide grants for improving the community infrastructure to support and promote physical activity.

Interviewees frequently mentioned that:

– Promotion of physical activity is integral to how the plans do business and is integrated within existing health programs and activities in general.
- The most extensive programs, in terms of breadth and number of participants, are characterized by support from upper management, and/or corporate culture that supports fitness.
- Responsibility and funding for member physical activity programs is typically distinct from that for community programs. Each of these responsibility centers and budget sources requires different kinds of business cases and outcomes. Most community and member programs tend to be managed separately. Fifteen to 20 percent of the interviewed health plans make no distinction between member and community programs. At those plans, almost all programs are available to both groups.
- As an employer, several plans offer fitness centers at low rates and others offer motivational challenges for employees.
- Very few health plans report having rigorously assessed the effectiveness of physical activity programs either for the community or members. Some have more information on the benefits (e.g., fewer sick days) of programs offered to their own employees.

Cultural, ethnic and linguistic sensitivity is essential to successful community outreach efforts reaching out to the community and to increasingly diverse member and employee group initiatives. Recognizing the interests, tastes and needs of a health plan's membership is important to the acceptance of a physical activity program by targeted members. Cultural sensitivity is exemplified by one health plan that has engaged in health messaging and social marketing, using focus groups to identify to which messages people listen and learn how different social/ethnic groups respond. Another health plan targets middle-aged women through a partnership with an ice hockey arena, which opens during the lunch hour so these women can participate in walking and skating programs at hours that are convenient for them. A nominal fee (co-payment) is charged to defray program costs.

Common Aspects of Physical Activity Programs

In general, few health plans have stand-alone physical activity programs, choosing instead to integrate physical activity into overall health promotion and disease management initiatives, combining physical activity messages and other initiatives into general services and programs. Four linked strategies were identified by interviewees as being common to several integrated initiatives:

1. "Affinity" programs and discounts to improve health and attract younger, healthier people.

2. Electronic media – the Internet site includes lifestyle and health information on physical activity. The plan provides member newsletters that can be personalized for each member with specific content that can include specific fitness programs and tips that are of high relevance to the individual.
3. Targeted case or disease management and/or general health promotion programs for members.
4. Collaborative efforts with the community, including sponsorship and participating in broad-coalition led activity programs.

Health plans are testing various approaches to include formal physical activity programs that target specific populations. Many of the programs are low cost and are the result of collaborative efforts among plans, state health departments, specialty associations and grant-funding agencies. Programs to encourage walking and stair climbing are two common examples. In at least two states, health plans (or their foundations) are funding grant for programs for school age children in conjunction with state departments of health.

The diversity of programs can be interpreted as health plans understanding the importance of integrating physical activity into overall customer service and benefits and being responsive to local needs and tastes. Alternatively, it may be viewed as a response to the lack of evidence to support what works in this preventive health care area and little concurrence on what constitutes an effective practice in this area.

Summary of Findings from the Survey and Case Studies

Many plans have wellness programs for members that are a part of a broad wellness and health promotion effort or are specific to certain populations, e.g. interventions for smoking cessation or prenatal care. Some plans offer telephone-based counseling, staffed by health educators. Patients may access this service by self-referral, or a phone call may be prompted by a health risk appraisal at the worksite or by referral from a physician. Other plans offer various health promotion classes and worksite wellness programs. Disease management programs often include interventions promoting physical activity. Outreach programs target employers to emphasize information on nutrition, exercise and smoking cessation. In all of these activities, promotion of physical activity is one of many goals, and its contribution to the overall benefit of such interventions cannot be isolated.

Constraints and Considerations

The response rate (23%) was lower than anticipated. The causes are attributable to non-systematic follow-up with non-respondents, technical difficulties and outdated contact information in the contact databases. As previously indicated, the 23% includes many large health plans representing over 62 million lives, however the low response rate limits extrapolation of these findings to the general population.

A definition for "program success" was not included in the e-mail survey due to space limitations, so that perceived "successfulness" of a program was interpreted differently depending upon the respondent. The survey was not designed to collect information by product type (e.g., HMO, PPO, or government programs), nor did we obtain participation rates for health plans' commercial community rated, small group or national accounts.

This limited our understanding of product-line differences. We recommend future surveys be designed to overcome these flaws and collect these data.

Bias, Validity and Reliability

The voluntary (self-report) nature of the survey may have resulted in respondent bias, with those plans that are more actively involved in physical activity programs being over represented and those with little experience in physical activity programs under-represented. To partially compensate for this, we conducted interviews with two health plans that reported very little involvement in physical activity programs. The external validity of our qualitative research cannot be generalized to all health plans because of the relatively low response rate. Respondents were disproportionately concentrated in the midwest and west, possibly affecting findings in undetectable ways.

The reliability of the survey results were proven to be robust by a subsequent survey of BCBS plans conducted in March 2002.[39] However, the uniqueness of this study mitigated against replicating it exactly. .

Discussion

Research has documented that regular exercise in all children and adults and, as outlined in a 1996 Surgeon General report,[40] is associated with myriad health benefits, including reducing the risk of: dying prematurely and/or from heart disease, developing diabetes, high blood pressure, colon cancer or osteoporosis. It also alleviates feelings of depression and anxiety, facilitates weight control, improves balance and reduces the risk of falling in the elderly, and promotes psychological well being. Yet, a significant proportion of Americans is sedentary or minimally active.

The Task Force on Community Preventive Services strongly recommends community-wide informational campaigns that are part of a multi-component effort to promote physical activity. Accordingly, informational campaigns by health plans include all media, inserts to membership mailings as well as more formal programs for targeted populations. Some health plans participate in this type of effort through broad community and worksite collaborations. However, our data did not indicate whether all such activities were large-scale, high-intensity and sustained, as recommended by the task force.

Often health plans view these public service collaborations as part of their commitment as contributing community participants or as part of a drive to increase member satisfaction or market visibility. In 60% to 70% of the interviews, we were told that a motivation for providing physical activity programs mirrors the health plan's mission – to improve the health of its members and community. However, physical activity programs for members are usually managed in a variety of departments within health plans, such as health promotion, quality assurance and member services, but programs for the community are typically managed by corporate communications and marketing departments. This separation illustrates the broad types of and different motivations for

health plans to offer physical activity programs and the difficulties in capturing an accurate assessment of health plan programs and activities.

Our findings indicate that member materials on physical activity (e.g., newsletters, Web sites, and disease management education) are the most commonly used intervention strategies for promoting physical activity. The clinical effectiveness and impact of these member materials on physical activity behavior are unknown because few outcome studies have been conducted. Although respondents rated these and classes for members and incentives for physicians to counsel patients as successful means of promoting physical activity, our confidence in these perceptions is low because few rigorous evaluations have been conducted.

The individuals interviewed mentioned a belief in the importance of physical activity programs and awareness that inactivity is linked to many serious health problems such as obesity, heart disease and diabetes. Yet, they cited difficulty in making a business case for physical activity programs because of the lack of solid evidence linking them with improved member health or cost savings. This may explain why the survey identified seven programs that are not currently being provided even though respondents perceived them as being "successful".

Moreover, few health plans have been able to produce useful return on investment (ROI) data for their physical activity investment. The lack of effectiveness and ROI data may be due largely to uncertainty regarding effectiveness of health promotion programs and tested metrics of successes (in contrast to smoking cessation, immunizations and prenatal care).

In making health plan business decisions, there is a need to document the effectiveness of targeted interventions to increase physical activity before resources can be committed. According to the individuals interviewed for the case studies, the main barriers to greater health plan involvement in physical activity are lack of resources, lack of solid return on investment (ROI) evidence, and the need to find more effective ways to motivate at risk populations and sustain behavioral change over long periods of time. Scientific evidence, purchaser demand and member satisfaction are essential to fostering greater use of physical activity programs for members. The lack of ROI and cost-effectiveness information may limit demand for physical activity programs both within the health plan and externally, e.g., members and employer-purchasers. Perhaps, effectiveness and ROI information, coupled with the broad understanding of health plan activities in relation to physical activity that is provided by this study could facilitate broader adoption of CDC Task Force recommendations on physical activity and recommendations from the Surgeon General's Report and the Robert Wood Johnson Foundation Report, Healthy Places, Healthy People.

Conclusion

This is one of the first broad studies to capture information on health plans' initiatives to promote physical activity among members and in community settings. Our study suggests

that health plans can play an active role in promoting physical fitness to a variety of populations in a number of settings. A broader study would augment this initial understanding of health plans' role in promoting physical activity and help to identify effective interventions and practices. Additional research is needed to provide evidence of the effectiveness of physical activity programs in terms of clinical efficacy, economic impact and member, community and provider satisfaction.

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[ii] Partnership for Prevention is a national membership association committed to increasing resources for and knowledge about effective disease prevention and health promotion policies and practices. The diverse membership includes corporations, nonprofit policy and research institutions, professional and trade associations, voluntary health organizations, health plans and state health departments. Partnership can be found online at www.prevent.org.

[iii] The Blue Cross and Blue Shield Foundation on Health Care is a 501(c)(3) not-for-profit organization. The Foundation is a centralized, coordinating entity that leverages the strengths of organized multi-plan health service research. The Foundation has recognized a unique opportunity to contribute to the public good by focusing on evidence and population-based studies as the most effective way to influence health outcomes, health policy and the quality of heath services and delivery.

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