ORIGINAL ARTICLE

Whole Person Health for the Whole Population: One-Year Evaluation of Health Coaching

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Abstract

Chronic diseases drive significant health care utilization and costs in the US. Simultaneously, there is growing evidence that self-care and collaborative decision-making practices are linked to improvements in health-related outcomes and reduced health care costs.

In April of 2005, Kaiser Permanente (KP) Georgia implemented a population care management service that included personal health coaching services to its 277,000 patients. KP Healthy Solutions (HS) provided the health coaching support, powered by analytics, to participants. Health coaches were available by telephone 24 hours a day, 7 days a week. HS users included patients with chronic conditions, those seeking to make healthy lifestyle changes, and patients with "preference sensitive" conditions who were considering treatment alternatives. Many of these services are provided in collaboration with HS's strategic vendor, Health Dialog, a national leader in the disease management industry. Data from September 2005 to September 2006 indicates that HS increases both quality outcomes and overall patient satisfaction with KP and achieves cost reductions, all of which create a significant return on investment.

Introduction

Chronic diseases drive significant health care utilization and costs in the US. Nearly half the American population has at least one chronic condition; 50% of those have two or more. Their direct health care costs account for 78% of US total health care expenditures.[1] There is growing evidence that self-care and collaborative decision-making practices are linked to improvements in health-related outcomes and reduced health care costs.[2]

The Southeast Permanente Medical Group (TSPMG) and Kaiser Foundation Health Plan senior leadership decided to pilot Healthy Solutions (HS) services within the regional care delivery system. HS is a special set of services—supported by predictive models that also use health coaches to extend medical care. By supporting both the primary care physician to manage—and the patient to self-manage disease states and by facilitating appropriate lifestyle/behavior changes, improved quality of care outcomes were achieved. Through targeted outreach services—phone calls, interactive voice response, Web programs, and mailings—health coaches work personally with patients to become more self-reliant, to improve their health care, to enhance their satisfaction, and to stabilize medical cost trends.

There is an expanding body of literature on quality outcomes and medical costs savings attributed to disease management (DM) programs. Two recent systematic reviews encompassing 11 clinical trials and 44 studies found reduced hospitalizations and a positive return on investment, specifically for heart failure programs and programs for multiple disease conditions. Financial results were mixed for asthma and depression programs, but may have reduced costs when productivity outcomes were factored in.[3,4] A third review of 102 studies, representing 11 chronic conditions, concluded that DM programs were associated with marked improvements in different processes and outcomes of care while financial outcomes were mixed.[5]

An analysis of the national American health care system demonstrated a movement from condition-specific DM toward whole-person and collaborative decision-making

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approaches, especially for surgical procedures.[6,7]

Kaiser Permanente (KP) Georgia leaders also recognized that HS was a meaningful response to requests from quality and cost-conscious employers for solutions to address their employees' entire spectrum of health care needs—from healthy individuals who want to stay healthy to people with known risk factors and/or early stage disease, to patients with diagnosed chronic conditions. Before HS implementation, patients could only access self-care management and Shared Decision Making (Foundation for Informed Medical Decision Making; Boston, MA) services through in-person office visits, classroom instruction or mailed information. The HS outreach services offered flexible approaches to accommodate various schedules and learning styles of patients.

TSPMG viewed HS as a valuable extension of Permanente Medicine and aligned with their principles and practices of informed decision making and support of patient self-efficacy.

Upon establishing a member's readiness for action, the health coach initiated tailored interventions and communication strategies to match the patient's health issues.[10]

Methods

In April 2005, HS was implemented within KP Georgia's 277,000 patient population—providing telephone access to personal health coaches 24 hours a day, 7 days a week—with special efforts to integrate health coaching into existing care-delivery systems, including the doctor office visit, nurse advice service, the centralized appointment center, referral departments, and KP HealthConnect (the comprehensive electronic health and medical record).

Patient Recruitment

On the basis of proprietary predictive analytics applied to monthly data feeds, health coaches called patients in three groups: 1) patients with chronic conditions and high risk of future costs; 2) patients with chronic conditions and significant gaps in their care; and 3) patients with preference-sensitive or high-impact conditions, such as back pain or joint pain. Using a Shared Decision-Making approach, health coaches helped participants articulate their personal preferences and values, as well as understand the risks and potential benefits of a variety of therapeutic alternatives. Receiving unbiased information about treatment options prior to an office visit helped prepare participants for more focused and informed conversations with their physicians.

In addition, patients could self-refer to a health coach after learning about the program from health educators (who actively promoted HS in classes and one-on-one sessions), their personal physician, or from general awareness mailers, newsletter articles, and posters.

Using the electronic medical record, physicians in their office could refer to a health coach, or embed the toll-free, health-coaching number in their patients' after-visit summaries.

Training

HS coaches were specially trained, registered nurses (augmented by respiratory therapists, pharmacists, and dieticians) with an average of 12 years of professional experience. The conceptual underpinnings of health coaching include Shared Decision-Making approaches, motivational interviewing,[8] Prochaska's Transtheorectical Model of Behavior Change,[9] and information from the Healthwise Knowledgebase.[a]

An important predictive component of determining a patient's desire to take action was the health coach's assessment of that member's belief in the importance of the recommended change and his/her confidence to act. Upon establishing a member's readiness for action, the health coach initiated tailored interventions and communication strategies to match the patient's health issues.[10]

Materials

Materials sent to patients after a health coaching session included: videos supporting collaborative decision making (produced by the

Table 1. KPHS[a] Quality Results

	Commercial (%)		Medicare (%)	
	Sept 2005	Sept 2006	Sept 2005	Sept 2006
ACEI/ARB-use and lipid testing rates among all patients with diabetes	76	78.3	71.3[b]	76.2[b]
Asthma-control medication use	90.6	92.7	88.7	90.2
Lipid-testing rates among patients with diabetes	77.9[b]	81.6[b]	84.5[b]	89.9[b]
Beta-blocker use among members with heart failure	72.6	81.6	62.3	74.8
HbA_{1c} testing rates for patients with diabetes	80.3[b]	83.3[b]	85.7[b]	90.6[b]
Glycemic control among patients with diabetes with HbA_{1c} ≤9%	73.4[b]	78.2[b]	89.2[b]	93.8[b]

[a] Kaiser Permanente Healthy Solutions
[b] p value < 0.5

Foundation for Informed Medical Decision Making and reviewed by TSPMG physicians), or TSPMG physician-reviewed health education materials, and online Web tools and information.

Results

A 12-month evaluation of the HS program was conducted in three domains: clinical quality indicators, patient satisfaction, and financial return.

1. Quality

In the opportunity analysis, 11,743 Georgia patients were identified with a diagnosis of diabetes. For HbA_{1C} control the numerator was patients with a value of 9% or less and the denominator was patients with diabetes with an HbA_{1C} test value available. For lipid control, the numerator was patients with an LDL value of ≤130 mg/dL and the denominator was patients with diabetes and a lipid test value available. For the study period, September 2005 to September 2006, the differences in both the commercial and Medicare populations were statistically significant ($p < .05$) (Table 1).

2. Patient Satisfaction

Satisfaction during the first year was determined on the basis of an independent third-party survey. From a sample of 11,000 KP Georgia patients of which 5700 were chronic-condition users of KPHS, and 5300 were nonchronic-condition users of KPHS, we conducted 505 interviews: 254 chronic-condition users and 251 nonchronic-condition users (Table 2).

3. Financial

The KPHS chronic-condition savings were calculated during the first year using an adjusted historical control methodology: a baseline from 12-months preceding intervention; trended from nonchronic-condition (index) population; analysis performed at patient-month level; and savings calculated separately by service category (Table 3).

Table 2. KPHS[a] satisfaction results and benefits

Patient satisfaction	
Satisfied with assistance from health coaches	87%
More positive about Kaiser Permanente Georgia in general	83%
Patient-perceived benefits	
Improved ability to talk with physician	72
Improved quality of care	86
Improved ability to self-manage health condition(s)	74

[a] Kaiser Permanente Healthy Solutions

Table 3. KPHS[a] financial benefits

Total net savings per person per month for Health Plan's entire population	$2.28

[a] Kaiser Permanente Healthy Solutions

Discussion

The goal of HS's health coaching was to "activate" patients to participate (through self-management) in their own health care by transferring information and skills to them and supporting their use of tools—health assessments and interactive Web programs—that benefit their health and health care.

In addition, through health coaching, patients learned how: 1) to collect and review current evidence-based information on their condition; 2) to prepare for doctor office visits, with an emphasis on preparing to discuss treatment options; 3) to review their options by assessing the facts and opinions they have gathered and to make a decision on the basis of their personal preferences and values; and 4) to translate their decisions into action.

The importance of these types of interventions was recently recognized in a report from the California HealthCare Foundation which concluded that self-management support improves health-related behaviors, and as a result, clinical outcomes.[11]

Data from the period from September 2005 to September 2006 indicate that HS increases both quality outcomes and overall patient satisfaction with KP. Data from the first year of the program show cost reductions, all of which create a significant return on investment. Several significant clinical parameters improved included: ACEI/ARB use and lipid-testing rates among patients with diabetes; asthma-control medication use; lipid-testing rates among patients with coronary heart disease; and beta-blocker use among patients with heart failure. A particularly noteworthy improvement occurred in glycemic control among patients with diabetes.

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Delivery System Integration

More than 80% of coaching encounters, which complements other medical care activities, were with a patient's identified health coach. Whereas a case manager may recommend a plan of action, or an advice nurse may direct a patient using algorithmic logic, a health coach is available around the clock to support personal decisions in creating an action plan. If a health coach became aware of a new symptom or an acute condition, s/he directly

An important goal of chronic disease treatment is teaching patients to live well and maintain an enjoyable, independent life.

linked the patient to a dedicated phone line, with the call center for advice or an appointment.

Departments that the health coaches interact with most often—case management, pharmacy, nurse advice, and the call center—received extensive training to prepare them for interactions with the health coaches. As such, clinical operational processes were developed to ensure efficient continuity of care so that health coaches knew which case managers to contact about each patient, and health-coaching encounters were scanned into the electronic medical record so physicians could see which of their patients had received health coaching.

Supporting the Physician-Patient Relationship

HS is guided by the belief that Collaborative Decision Making is a process between health care providers and patients and leads to better outcomes. Health coaches are trained to support—not replace—the primary physician-patient relationship.

An important goal of chronic disease treatment is teaching patients to live well and maintain an enjoyable, independent life. Since neither the disease nor its consequences are static, the patient may experience a changing pattern of symptoms and disability. To manage this complexity, an ongoing physician-patient partnership is necessary.[12] Physicians use professional knowledge and personal information about disease manifestation patterns, as well as intimate knowledge of the patient's lifestyle, cultural background, and degree of family/community support to effect appropriate lifestyle/behavior change. The physician-patient partnership is built on this exchange of expertise.[2]

In Georgia, physicians were a rich source of referrals for the health coaching program. Patient registry reports were one of the major HS physician support tools used in the program. These patient panel lists were regularly sent to network physicians and to Permanente physicians to identify which of their patients had one or more chronic conditions and what potential "gaps in care" might exist.

To enhance this one-year effect of implementing HS, improving referrals to health coaches will become a prioritized area of effort, from both expanding awareness of the program and enrolling greater numbers and types of patients who, through participation, improve individual and population health. This will require increased integration with the delivery system, including the electronic medical record. In addition, finding more opportunities to engage network physicians will be essential for continuing success of the HS program. ❖

[a] The Healthwise Knowledgebase provides Kaiser Permanente members with health content on thousands of clinical conditions to help people make wise health decisions.

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