

## FAST TRACK ARTICLE

# Factors Affecting the Frequency of Value-Focused Health Activities and Policies by Employers

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**Objective:** We sought to gather employer perspectives about value-focused activities (VFAs), intentions to make decisions based on value, and other factors affecting decisions. **Methods:** Health decision-makers ( $n = 174$ ), both American College of Occupational and Environmental Medicine members and corporate HR/benefits directors, responded to an Internet-based questionnaire. **Results:** Of a total of 32 listed VFAs, companies reported, on average, performing 5.2 activities currently and considering 2.6. Twenty-five percent of companies reported doing eight or more. The most common VFAs were providing access to flu shots, centers of excellence, and wellness programs. Greater access to detailed outcome data was associated with doing more VFAs, as was greater accountability for absence, disability, and productivity outcomes. **Conclusions:** Employers vary widely in the number of VFAs in which they participate. Decision-makers with more information about, and accountability for, value outcomes reported doing more VFAs. (J Occup Environ Med. 2004;46:1103–1114)

Health care costs have become a significant issue for US employers, as companies face steep and unremitting health care cost increases along with simultaneous competition for business in an ever-tightening global market. Naturally, many employers have taken steps to reduce their exposure to increasing health care costs by shifting more cost to employees, by offering less expensive (and less comprehensive) health care options, and by limiting eligibility for health care benefits.<sup>1</sup>

At the same time, there has been increased recognition in the past 5 years of the value of having a healthy workforce, both in presence on the job and the ability to perform productively. Consequently, a small-but-growing number of employers are considering employee health and health care benefits as part of a broader strategy where the value of health and health services are linked to broader set of corporate business objectives. Within a context of total cost containment—which includes direct costs as well as indirect costs, such as absences and productivity loss—there is little evidence about how employers are addressing the indirect effects of health. This investigation examines how often employers are choosing activities that consider total business value in addition to straightforward cost management.

An increasing body of evidence shows that direct health care costs are only a small part of an employer's total cost of poor workforce health. Many studies show that pro-

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ductivity-related costs, including absenteeism, short-term disability, long-term disability, workers' compensation, and reduced on-the-job performance, are two to three times more costly than direct medical costs.<sup>2-4</sup> Although there are diverging opinions about the relative accuracy of measures for productivity (often self-report),<sup>5-7</sup> there is an expanding body of evidence showing that productivity loss attributable to health issues is a significant issue for employers.<sup>8-16</sup>

Anecdotal reports indicate that a few large employers have made efforts to manage both the costs and productivity loss related to health. They have experimented with methods for measuring productivity loss and have initiated approaches/interventions intended to reduce productivity loss. Typically, these companies have implemented "value-focused activities" (VFAs). VFAs are those that take into account not only cost to deliver but also the overall value of the activity, including its effectiveness at reducing absences and/or increasing on-the-job performance. VFAs include providing flu shots on-site to reduce sickness absence from influenza,<sup>17</sup> providing in-house clinics to reduce time away from work, offering wellness and disease-management programs<sup>18-23</sup> to improve health and reduce sickness absence, selecting a health plan based on ability to produce better HPM outcomes,<sup>24-26</sup> or waiving a drug copay for better productivity outcomes.<sup>27-29</sup> Employers also are looking at ways to create incentives for providers who deliver agreed upon outcomes, eg, pay-for-performance.<sup>30,31</sup> Pay-for-performance certainly includes hitting expenditure targets but also can include improvements in productivity through more efficient return to work, reimbursing doctors more for offering after work hours, or practicing evidence-based medicine.

How far has the total value concept evolved into the mainstream of corporate health care? And what are

the current productivity-oriented, value-focused purchasing patterns among corporate health decision-makers? This survey asked respondents about "their perspectives on the nature of worker health and productivity"; "the degree to which senior management holds them accountable for absence or performance outcomes"; "how they would change their company's human capital investments to maximize the productivity of their workforce"; "the kinds of information available to them in making important benefits policy decisions"; and "the kinds of value-focused decisions they have initiated."

Typically, the impetus for addressing total value has come from either the HR/health benefits department or the occupational health department. Although these two areas of corporate health care leadership have broad interest in improving the health of employees, oftentimes they function in separate silos and, therefore, little is known about their respective views on value consideration and their roles in crafting HPM policy. As researchers and practitioners focus more on productivity factors as outcomes of personal health, it will be important to understand the kinds of activities, policies, and purchasing decisions employers are using to get to those outcomes and who is responsible for making those decisions.

This survey examined how decisions are made regarding health benefits and human capital and the degree to which VFAs are being incorporated into the design of corporate health benefits. Activities that are taken to maximize productivity are referred to as VFAs. Although some activities may be undertaken to address both direct costs as well as absence/productivity outcomes, this investigation asked about activities that were chosen with the intention to manage the latter. Specifically, five areas of employer VHAs were investigated:

1. Value-based decisions about health plans and absence vendors—how do employers determine the value of different vendors beyond price?
2. Other value-based programs—have employers considered other outcomes in their selection of disease management, wellness, or other programs?
3. Value-based drug benefit designs—in what ways is value considered in designing access to treatments/therapies?
4. Incentives for providers—how do employers apply incentives to encourage their providers to make specific treatment/therapy choices around valued outcomes rather than just cost reduction?
5. Incentives for individuals—how do employers apply incentives to encourage participation and compliance with appropriate treatments/therapies?

## Materials and Methods

### Sample

Data for this study came from 174 respondents to an Internet-based questionnaire administered between April 26 and June 29, 2004. Questionnaires were e-mailed to 690 members of the American College of Occupational and Environmental Medicine (ACOEM) who were identified as either Corporate Medical Directors or Contracted Medical Directors providing occupational health services to one or more employers. A response of 128 Medical Directors represented a 17.4% response rate. These corporate and contracted medical directors were asked to share the survey with their colleagues in HR/benefits. The purpose was to attract "matched pairs" (Corporate Medical Director and Benefits Director from the same company). A total of 28 matched pairs were identified. Questionnaires were also e-mailed to 179 corporate benefits/HR directors who were either members of a Business and Health Coalition (Community Health care Coalition [Canton,

Ohio], Mid-America Coalition on Health Care [Kansas City], New York Business Group on Health, and the St. Louis Area Business Health Coalition) or were previous participants in HCM surveys. A response of 46 Benefits Directors represented a 25.7% response rate. Because there are 28 matched pairs (two respondents from the same company), the 174 individual respondents represent 146 employers. In this analysis, only one member of the matched pair was included (the nonmedical respondent) to focus on unique companies with an equal number of medical and non-medical respondents. To increase the response rate, researchers sent three e-mail reminders and made phone calls to a subsample of both ACOEM members and coalition members.

## Measurement Tool

The survey used an Internet-based questionnaire developed specifically for this project. It consisted of 37 items asking about the respondent's position and their role within the organization, their beliefs and philosophy about how employee health relates to the company's business, how they typically make decisions about their health policy/program, and whether or not they have taken actions intended specifically to maximize the productivity of their workforce. Because many questions had several subcategories the total number of questions was 119.

The questionnaire was developed by the authors with input from other experts within ACOEM and Aventis market research. A specialized Internet-based survey vendor, Zoomerang (Mill Valley, CA), provided the infrastructure for loading the questionnaire, broadcasting to the list of potential responders, retrieving the completed questionnaires, and providing the raw data in the form of frequency tabulations.

The questions used forced choice options (except for the descriptive questions about position and role within the organization) in most

cases using a 5- or a 10-point Likert scale to provide a comprehensive range of responses. For instance, "Please indicate your personal level of agreement with the following statement: The health of our workforce is strongly associated with our company performance": 1 = strongly agree, 2 = somewhat agree, 3 = neutral, 4 = somewhat disagree, 5 = strongly disagree. Questions were organized into four broad areas, including 1) position, roles, and responsibilities; 2) beliefs and philosophy; 3) decision-making processes; and 4) VFAs. Because of the large number of questions regarding value-focused activities, these items were divided into smaller subsections of activities.

Five versions of the survey were administered to minimize any order bias in the items that had lists. For any item in the survey consisting of lists of four or more subitems to consider, the order of subitems was systematically altered such that any subitem had an almost equal likelihood of appearing first in the list. Potential respondents were divided into five equal groups alphabetically and each received the survey version that matched their group. Respondents were required to complete the questionnaire at one sitting. They did not have the opportunity to partially complete the questionnaire.

## Specific Items

Specific survey items that are relevant to this analysis are described below.

*Accountability.* Respondents were asked about the degree to which they were held accountable for collecting accurate data about or generating outcomes for health status, health cost trends, absence rates, and productivity. Responses were as follows: not part of my job, some accountability, primary accountability, and primary accountability with part on my compensation based on the result.

*Role in Design.* Two survey items inquired about the respondent's role

in designing health care and absence benefits. Responses were: no input, some input, significant input, and I design it.

*Availability of Data.* Respondents were asked what sources of, and at what level of detail, data would be available to them if they were faced with a policy decision in the next 60 days. The types of data were health conditions, incidental absences, health care costs, disability days, and productivity outcomes. The levels of detail were: no data, standard reports, some group level reports, and customized queries from an integrated database.

*Selected Opinions.* Respondents were asked to rate their opinion on a 5-point Likert scale (strongly disagree to strongly agree) to the following statements: "Health care costs are a bigger problem for our company than health-related productivity loss" and "It is possible to design benefits so that they pay for themselves in improved productivity." Respondents also were asked to rate the perceived importance of health care cost management, absence management, and productivity management to their senior executive team (using a scale of 1 to 10).

## Analysis

Survey responses were analyzed using statistical software (SAS for Windows, Version 8, Cary, NC). Analysis consisted primarily of frequencies, crosstabs, and correlations. New aggregate variables were created to provide summary scores for various attributes and actions. For accountability, the number of areas for which the individual reported primary accountability was summed. For data availability, a summary score was created by totaling the number of sources (from health care costs, absences, disability, and productivity) for which the most detailed level of data was available. The number of total activities being done currently, planned, or considered was also totaled.

Percentages were compared using a  $\chi^2$  statistic. Ordinal and integer variables, such as ratings and counts, were compared using *t*-tests. Statistical significance was assigned at  $\alpha = 0.5$ , with detailed *P* values reported in cases where that level of significance was not reached.

## Results

### Respondent Companies

Responses were analyzed from 146 employers. Respondents were decision-makers in health-related areas, including corporate medical departments ( $n = 55$ ) and benefits ( $n = 35$ ), and HR ( $n = 48$ ). The most common job titles of respondents were corporate medical director ( $n = 48$ ), chief medical officer ( $n = 11$ ), director ( $n = 33$ ), manager ( $n = 31$ ), and vice president ( $n = 11$ ). Half of respondents were members of ACOEM ( $n = 74$ ), indicating a medical degree, and half were not ( $n = 72$ ). Very few nonmedical respondents identified themselves in the corporate health department (2%). However, one quarter of medical respondents identified themselves in a department other than corporate health.

Employers were primarily large corporate organizations: 39% of employers had more than 10,000 employees, 36% had 2500 to 9999

employees, and 25% had fewer than 2500 employees. Many types of industries were represented: manufacturing ( $n = 52$ ), health care ( $n = 20$ ), finance ( $n = 15$ ), transportation/utilities ( $n = 15$ ), five government entities, and smaller numbers of other industries.

### Perceived Business Importance of Health Care Costs and Other Outcomes

Respondents perceived that their senior executives view the management of health care costs as highly important. On a scale from 1 (not at all important) to 10 (the most important goal for their company), 64% of respondents indicated that their executive team rated health care cost management as an 8 or greater (mean, 7.9). Respondents did not report that managing absences (mean, 6.5) or managing productivity (mean, 6.8) were as important to their executive team. Only 34% and 42% rated them as greater than an 8, respectively ( $P < 0.05$ ).

The respondents varied in their personal opinion about the relative magnitude of health care costs compared with productivity loss. In response to the statement "Health care costs are a bigger problem for our company than health-related productivity loss," 23.5% disagreed, 46.2%

agreed, and 30.3% were neutral. Regarding their belief that "it is possible to design benefits so that they pay for themselves in improved productivity," 19% disagreed, 61% agreed, and 20% were neutral.

### Accountability for Outcomes

Few respondents reported having part of their compensation determined by results in health-related outcomes (Table 1). Only a minority reported receiving incentives for performance in improving health care cost trend (18%), improving health status trends (9%), reducing absence rates (4%), or increasing productivity (3%). Primary accountability with or without incentives was reported by respondents for health care cost trend (39%) and health status (32%) more often than for absences (17%) or productivity outcomes (11%).

Interestingly, a large portion of respondents reported having no accountability for many health-related outcomes (response choice of "not considered part of my job"). The highest reports of nonaccountability overall were for productivity (50%), and absences (47%). One quarter reported no accountability for health care cost trends.

### Accountability for Accurate Data

Respondents also did not report high rates of accountability for hav-

**TABLE 1**  
Accountability for Health Care Outcomes by Medical Versus Nonmedical Professionals

Level of Accountability	Type of Professional	Percent Reporting This Level of Accountability for Outcomes			
		Health Care Cost Trends	Absence Rates	Productivity	Health Status Outcomes
Primary with incentives	Total ( $n = 145$ )	18	4	3	9
Primary accountability	Total	21	13	8	23
Some accountability	Total	36	36	39	43
Not part of their job	Total	25	47	50	24
Primary with incentives	Medical ( $n = 73$ )	5	3	2	11
Primary accountability	Medical	10	18	5	34
Some accountability	Medical	41	45	47	40
Not part of their job	Medical	44	34	47	15
Primary with incentives	Non-medical ( $n = 72$ )	31	3	3	3
Primary accountability	Non-medical	33	4	10	11
Some accountability	Non-medical	29	28	27	47
Not part of their job	Non-medical	7	65	60	39

ing accurate data about health-related business outcomes. Only 17% reported receiving incentives to collect accurate data regarding health care cost trend. Ten percent or fewer received incentives to collect accurate data about health status (10%), absence rates (3%) or productivity (1%). Primary accountability, with or without incentives, for accurate data was reported more often for health care cost trend (40%), health status (28%) than for absence rates (6%). The highest rates of non-accountability for data were in the areas of turnover (80%), productivity (64%), and absence rates (56%).

### Differences Between Medical and Nonmedical Decision-Makers

Accountabilities for data and outcomes were strongly associated with the medical expertise and department of the respondent. Because almost all nonmedical respondents were in HR and benefits and most medical respondents were in corporate health, the bivariate indicator of medical affiliation (ACOEM member or not an ACOEM member) was used as a basis of comparison. As seen in the lower part of Table 1, accountabilities for outcomes are clearly divided between medical and nonmedical professionals. The areas of greatest separation of accountability are health care cost trend (primarily the responsibility of the non-medical respondent) and health status (primarily the responsibility of the medical respondent). Overall, there were low rates of reported primary accountability and much higher rates of shared accountability.

Another notable difference between medical and nonmedical decision-makers was their degree of involvement in designing health benefit and absence policies. As seen in Fig. 1, nonmedical professionals (those in HR and benefits departments) play a significantly more influential role in design. Similarly, nonmedical decision-makers were

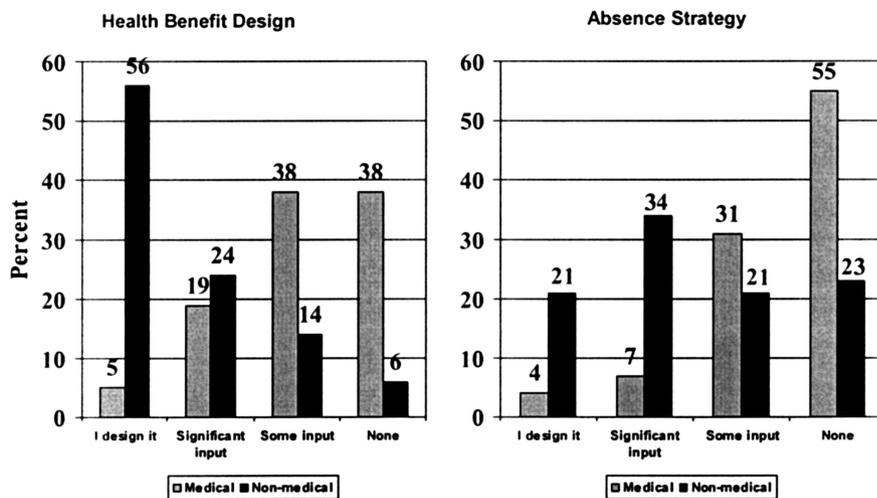


Fig. 1. Reported roles in benefit design.

more likely to have complete budget authority over specific benefit programs. Nonmedical respondents reported having complete authority significantly more often ( $P < 0.05$ ) than medical respondents for group health (60 versus 4%), absence and disability (39 versus 13%), disease management (43 versus 6%), and wellness (42 versus 26%). Medical respondents were more likely than nonmedical respondents to report having no budget authority for benefits programs, such as group health (89%), absence and disability (62%), disease management (59%), and wellness (37%).

Opinions also differed with regard to the importance of various health outcomes. Significantly more non-medical respondents (54%) agreed with the statement "Health care costs are a bigger problem for our company than health-related productivity loss," than medical respondents (39%). Ten percent of medical respondents strongly disagreed with this statement compared with none of the nonmedical respondents. Similarly, nonmedical respondents were more skeptical about the ability to design benefits that return productivity value. Twenty-eight percent disagreed that benefits could be designed so that they pay for themselves in improved productivity, compared with only 9% of medical professionals.

### Availability of Data

Companies report having varying levels of internal data about health-related outcomes. As shown in Table 2, respondents report more detailed data (customized queries) regarding health care costs (40%) than regarding other outcomes such as absences (22%), disability days (32%), or productivity (11%). For some companies, no data were available about productivity (40%), incidental absences (20%), or health conditions (16%). Across four sources of data, only five companies reported having no data for any area, whereas 57 companies (40%) reported having detailed data about all four outcomes. Medical and nonmedical respondents reported similar amounts of available data.

### Total VFAs

The frequency of companies doing, planning or considering, or not doing VFAs are shown in Table 3. Of 32 possible activities, the most common were offering flu shots to reduce absenteeism (90%), opening an in-house medical clinic to avoid lost work time (48%), covering care at a center of excellence to optimize efficiency of care and return to work (44%), and offering wellness programs specifically to reduce absences (39%). The activities companies reported least frequently were

**TABLE 2**  
Reported Availability of Types of Data by Health Care Outcomes

Level of Data	Percent Reporting This Level of Data Available for Outcomes			
	Health Care Costs	Incidental Absences	Disability Data	Productivity
No data	3	20	5	40
Standard reports	17	25	24	24
Group reports with some flexibility	40	33	39	25
Customized queries of integrated data	40	22	32	11
No. responding	<i>n</i> = 142	<i>n</i> = 141	<i>n</i> = 142	<i>n</i> = 142

entering into provider gain-sharing arrangements that reward providers for keeping people at work (2%), reimbursing providers more for offering clinic hours outside of work time (less than 1%), choosing a more expensive health plan because of their superior absence and productivity outcomes (1%), and waiving co-payments for chronic disease maintenance drugs if employees maintain good clinical outcomes (1%). Fifteen of the 32 activities were reported by at least 1 in 10 companies surveyed. The remaining 17 activities were reported by fewer than 1 in 10 companies, with 10 activities being reported by fewer than 1 in 20 companies.

The frequencies with which activities were being considered or planned in the near future differed from those already being performed. In other words, companies are planning different activities in the future than those most commonly being performed today. The most commonly planned or considered activities were adding incentives for health risk appraisals (25%), implementing a wellness program (24%), reducing premiums for health promotion participants (21%), and choosing a more expensive disease management program because of demonstrated absence and productivity outcomes (21%). The activities being considered least frequently are flu shots (1%), including a more expensive medication on formulary (when an over-the-counter option is available) to improve employee performance (3%) or safety (3%), and rewarding perfect attendance (3%).

Companies reported doing an average of 5.2 of the 32 listed activities, planning 0.4 in the coming year, and considering another 2.6 activities, for an average total of 8.3. However the range of the number of activities companies were doing was wide, with a minimum of 0 and maximum of 22. The 25th percentile, median and 75th percentiles for activities were 2, 5 and 8, respectively.

Medical and nonmedical decision-makers reported similar overall rates of doing and considering activities. However, there was a slightly higher tendency for medical respondents to report considering more provider-related activities, and for non-medical respondents to report considering more benefits and program activities ( $P < 0.10$ ).

### Associations Between VFAs and Other Factors

Larger organizations reported doing more VFAs than smaller companies on average (Fig. 2). The difference is significant for companies having 5000 or more employees (mean, 5.61) versus those having fewer than 5000 employees (mean, 3.85;  $P < 0.05$ ). Companies in different industries also tended to report different rates of VFAs, although there were not sufficient numbers of companies in most industry groups to make reliable comparisons. For example, higher rates of doing or considering activities were reported by telecom (11.8 activities) and manufacturing (9.6 activities) compared with the lowest rates for government

organizations (5.8 activities) and health care (6.9).

As seen in Table 4, many factors were significantly correlated with having a high number of VFAs. In general, more total activities were associated with more primary accountabilities for health-related data and outcomes, a reported greater role in benefit design, more available data about health-related outcomes, higher ratings of the importance of internal data for decision-making, higher ratings of the use of benchmarking against leading organizations as an external strategy, rating one's company as more proactive, and disagreement that health care costs are a bigger problem than productivity loss. Factors that were not correlated with doing more activities were the perceived importance of health care costs and absence management by the senior executive team, the importance of external consultants in decision-making, and the importance of group consensus to decision-making. Doing more activities was associated with considering more of the other VFAs ( $r = 0.41$ ,  $P < 0.0001$ ).

Correlations between these various factors and specific types of activities are shown in Table 4. Factors associated with the number of drug-benefit activities were similar to those associated with the total number of activities overall. The strongest associations were with the availability of data, accountability for outcomes, and the importance of data to decision-making. Degree of PBM influence in drug benefit design was positively associated with

**TABLE 3**  
Frequencies of Value-Focused Activities

Activities	Percent providing this response						n
	Doing Now	Planning This Year	Considering	Planning or Considering	Haven't Consider	Don't Know	
Health plan and absence management							
Chose a health plan specifically because of their absence and productivity outcomes	4	4	8	12	68	17	142
Chose a more expensive health plan because of their absence and productivity outcomes	1	0	7	7	73	18	142
Chose an absence management vendor because they demonstrated a better reduction in absence/disability days	18	3	12	15	49	18	138
Chose a more expensive absence management vendor because they demonstrated a better reduction in absence/disability days	7	2	6	8	61	24	142
Chose a health plan because they provide after-hours clinics to reduce loss of work time	9	2	6	8	69	14	142
Chose a more expensive health plan because they provide after-hours clinics to reduce loss of work time	4	1	5	6	73	18	142
Programs							
Included access to a center of excellence for treating serious disease because it has significantly lower complication rates and faster recovery times	45	4	12	16	29	10	143
Implemented a wellness program <i>specifically</i> to reduce absenteeism	40	3	21	24	29	7	143
Opened an in-house medical clinic to avoid lost work time for minor non-work related medical issues	49	0	6	6	41	4	143
Chose a more expensive disease management vendor because they demonstrated better absence or productivity outcomes	10	5	16	21	53	16	143
Provided flu shots at a discounted cost—or free—to reduce absenteeism	90	1	1	1	6	3	143
Drug benefit							
Chose to include a medication on formulary <i>because</i> it had proven productivity outcomes	20	1	6	8	52	20	141
Chose to include a more expensive medication on formulary (or better tier) because it had better productivity outcomes	13	2	6	9	58	20	141
Included a prescription medication on the formulary when an alternative is available over the counter, because of safety	21	1	2	4	54	22	142
Included a more expensive prescription medication on the formulary when an alternative is available over the counter, because of safety	17	0	5	5	54	25	138
Included a more expensive prescription medication on the formulary when an alternative is available over the counter, because of improved job performance	13	0	3	3	65	19	142
Changed tiers of medications used to treat specific chronic diseases to encourage compliance	23	1	11	12	44	21	140

the number of drug benefit activities. Factors associated with the total number of activities did not show the same associations with the number of provider-related activities. For example, although the importance of internal data and benchmarking was associated with the number of total activities and drug benefit activities, these factors were not significantly

associated with the number of provider-related activities. The only significant associations were with accountability for absence and health status outcomes and data, importance of benchmarking against leading organizations, and disagreement that costs are a larger problem than productivity loss. Offering drug benefits activities was highly correlated with

considering other activities ( $r = 0.53$ ), while doing provider-related activities was not ( $r = 0.11$ ).

Significant correlations among other variables include negative associations between having more productivity data and believing that health care costs are a bigger problem than productivity loss ( $r = -0.16, P < 0.05$ ) and being more

**TABLE 3**  
Continued

Activities	Percent providing this response						n
	Doing Now	Planning This Year	Considering	Planning or Considering	Haven't Consider	Don't Know	
Provider strategies							
Developed gain sharing arrangements with a physician group where providers share in financial savings from keeping patients out of the hospital	4	0	6	6	75	16	141
Provided higher reimbursements to providers for performing chronic disease maintenance and counseling	5	0	13	13	68	14	142
Provided higher reimbursements to providers for higher performance on HEDIS measures	6	0	12	12	63	19	141
Increased reimbursements to providers for procedure options that can be performed on an outpatient basis rather than an inpatient basis	9	0	7	7	61	23	141
Provided higher reimbursement rates for seeing employees outside of working hours	1	0	4	4	79	16	143
Entered into provider contracts that include gain sharing provisions for keeping people on the job	2	0	5	5	79	13	141
Entered into provider contracts that reward better return to work rates	4	0	9	9	73	14	142
Entered into provider contracting that includes higher reimbursement in return for training about appropriate return to work processes	4	1	4	4	78	13	141
Established direct contracting arrangements	12	2	3	5	67	16	115
Individual incentives							
Waived co-payment on a maintenance drug (such as insulin) as long as employee improves or maintains good clinical outcomes	1	1	16	17	72	10	142
Provided of other medical tests or supplies (such as monitors) for free as long as clinical indicators are positive	17	0	11	11	61	10	140
Offered incentive programs for participating in health risk assessment and health risk reduction programs	35	6	20	25	34	6	142
Offered gain share arrangements where employees receive cash for a portion of unused sick time	7	1	6	8	74	11	141
Provided rewards for perfect attendance	31	1	3	4	57	8	141
Offered reduced premiums for health promotion participants	12	2	20	22	59	7	140

accountable for absence and productivity outcomes and believing that health care costs are a bigger problem than productivity loss ( $r = -0.17$  and  $0.15$ ,  $P < 0.05$  and  $P < 0.10$ ).

The association between having data sources available and doing VFAs was significant for all health-related outcomes. For every data type, having more data was associated with doing more VFAs. As shown in Fig. 3, the number of different data sources also was associated with doing and considering more activities ( $r = 0.41$ ,  $P < 0.01$ ). Companies that reported having detailed cost, absence, productivity, and disability data re-

ported considering or doing twice as many activities (12.2) than those who reported having no detailed data of any type (6.0).

### Patterns of Activities Being Offered and Considered

Companies were separated into three groups based on the number of total activities reported: fewer than three ( $n = 37$ ), three to five ( $n = 55$ ), and six or more ( $n = 54$ ). These groupings provide indications of what the low-, moderate-, and high-activity companies are doing currently and considering in the future. The differences in the types of activities reported

by high and low activity companies were greatest for in-house clinics, programs and incentives for wellness, and various formulary decisions that focus on productivity and safety outcomes. Drug benefit design was a distinct area of differentiation between high and low activity companies. More than 30% of high-activity companies reported doing each of the drug-benefit activities compared with none of the low activity companies. The largest differences between what high- and low-activity companies are considering were seen with individual incentives for health promotion and clinical management, and choosing a disease management

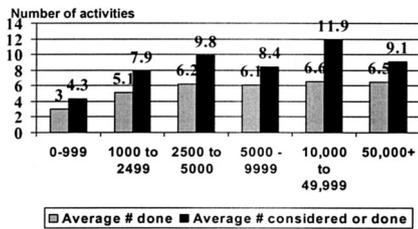


Fig. 2. Number of value-based activities per company size.

vendor to manage absence and productivity outcomes.

## Discussion

A primary goal of this survey was to describe the decision-making processes, company characteristics, and functional roles of personnel within organizations that have chosen value-focused policies and activities in place of traditional cost-management options. These results suggest an emerging prototype of a value-focused organization, and of a value-focused decision-maker.

Implementation of value-focused policies and activities occurs more often among larger companies that are informed, data-oriented and hold their decision-makers more accountable for outcomes besides costs. Decision-makers who have access to more detailed data about more than one type of outcome, have less of a cost-only perspective. Companies whose health care decision-makers have more of a value orientation report doing more value-focused activities. Doing value-focused activities was not associated with the reported opinions of senior management or influence of outside consultants. However, these activities were associated with organizations that are proactive, value and have access to internal data, benchmark against other leading or innovative organizations, and hold decision-makers accountable for outcomes such as absence rates and productivity. The personal opinions of decision-makers are stronger correlates of value-based activities than external influences.

Adoption of VFAs overall varied widely among the employers sur-

veyed. The range was 0 to 22 of 32 activities. Only a few activities were reported by a large number of employers. Only one activity (a simple offering of flu shots to reduce absenteeism) was reported by the majority of companies. Only two others (centers of excellence and in-house clinics) were performed by more than 40% of respondents. Most activities are not common. Special incentive arrangements with providers and choosing health plans based on non-cost factors are least common. On average, organizations are considering or doing only 8 of 32 listed activities at this time.

The activities being planned or considered most often are in the areas of wellness and disease management. One in five companies reported considering or intending to add a wellness program, add a disease-management program that focuses on absence outcomes, provide incentives for participation in health promotion, or change medication tiers to promote compliance.

Compared with companies doing the fewest VFAs, companies with the greatest value focus chose more frequently to offer health promotion programs and incentives and to design their drug benefit to manage outcomes other than cost. These types of activities appear to characterize early adoption of VFAs because current drug benefit activities are predictive of the number of other activities being considered. Conversely, activities involving a value-focus through providers or health plans were reported least frequently, and did not correlate with considering other activities.

Despite recent publicity about provider pay-for-performance, value-focused provider strategies were generally not reported and were not among those activities being considered most often. Of note, respondents rarely reported making choices about health plans by considering value, nor did they intend to do so in the future. These trends in activity indicate that even the most value-

focused organizations have not chosen to apply a value-focused approach to the traditional health care delivery system. Instead, their value focus is applied to internal programs, employee incentives, add-on programs (such as disease management) and specific policies about medications.

Although respondents were not asked why certain activities were selected more often, several reasons are plausible. Cost of implementing the activity may play a role, although flu shots, wellness programs, and in-house medical clinics vary widely in that regard. Some rates suggest that simpler activities may be more attractive. As mentioned, many of the more commonly reported activities involve policies that require less effort to implement. Ease of implementation also may explain why larger companies, which have more resources to apply, reported more activities than smaller companies. Decision-makers may also select the activities over which they have the most influence. Provider strategies—an area where few employers have been involved—were least commonly reported.

VFA rates indicate that decision-makers more often choose activities that balance their need to manage both direct and indirect costs. Five activities were included twice in the questionnaire, once with no qualifier and once with the qualifier that the activity had a higher price. Essentially, this examined whether the company felt the value outcome was important enough to pay more for the service. In every case, fewer reported doing the activity when it was specified as more expensive. Decision-makers were more likely to include a drug on formulary or choose vendors with better absence outcomes, if it was not more expensive than other choices. As such, it appears that goals for indirect and direct cost management do not operate independently. Although 61% of respondents reported that, "It is possible to design benefits so that they pay for them-

TABLE 4

Correlations Between Number of VFAs, Respondent Opinions, Data Availability, and Accountability

Survey item	Correlation With Total Number of VFAs	Correlation With Number of Provider Activities	Correlation With Number of Drug Benefit Activities	Item Units
<b>Opinion</b>				
Agreement that health care costs are more important than productivity loss	-0.22	-0.20	-0.27	1 = strongly disagree, 5 = strongly agree
Agreement that benefits can be designed so that they pay for themselves in improved productivity	0.20	0.11	0.20	Same
<b>Internal and external influences</b>				
Rating of influence of internal data to decision-making processes	0.33	0.11	0.23	1 = no influence, 10 = main source of influence on decisions
Rating of influence of benchmarking with leading companies	0.27	0.16	0.22	Same
Rating of influence of benchmarking against innovative companies to determine prescription design	0.26	0.10	0.35	Same
Rating of influence senior management opinion on decisions	0.06	-0.03	0.04	1 = no influence, 10 = main source of influence on decisions
Rating of influence of consultants as in over health benefit design	0.04	0.07	-0.11	Same
Importance of group consensus to internal decision making	0.05	0.00	0.05	Same
Rating of influence of consultants in pharmacy benefit design	0.04	0.04	0.00	Same
Rating of importance of PBMs in pharmacy benefit design	0.13	-0.03	0.18	Same
Perceived importance of health cost management to executive team	0.14	-0.01	0.10	1 = not at all important, 10 = most important goal for the company
Perceived importance of absence management to executive team	0.07	-0.03	0.01	Same
Rating company as proactive rather than reactive in health issues	0.31	0.09	0.33	1 = very reactive, 10 = very proactive
<b>Data</b>				
Degree of availability of data about health conditions	0.43	0.25	0.26	1 = no data, 2 = standard reports, 3 = group reports with some flexibility, 4 = customized queries of an integrated database
Degree of availability of data about absence	0.17	0.11	0.08	
Degree of availability of data about health costs	0.35	0.17	0.20	Same
Degree of availability of data about disability	0.29	0.08	0.23	Same
Degree of data availability about productivity	0.22	0.17	0.21	
Number of data sources available (not conditions)	0.41			
<b>Roles and accountabilities</b>				
Accountability for accurate health status data	-0.39	-0.29	-0.18	1 = primary accountability with incentives, 4 = not part of job
Accountability for health cost data	-0.20	-0.08	-0.04	Same
Accountability for absence data	-0.23	-0.16	-0.12	Same
Accountability for productivity data	-0.18	-0.08	-0.14	Same
Accountability for accurate health status outcomes	-0.30	-0.20	-0.22	Same
Accountability for health cost outcomes	-0.24	-0.09	-0.11	Same
Accountability for absence outcomes	-0.26	0.24	0.19	Same
Accountability for productivity outcomes	-0.24	-0.11	-0.22	
Number of items for which respondent had primary accountability	0.24	0.11	0.15	Number of areas of health outcomes—out of four—where respondent had primary responsibility
Role in absence strategy design	0.30	0.08	0.22	1 = not involved, 4 = primary responsibility
Role in benefit design	0.26	0.03	0.15	Same
Number of other activities being considered	0.41	0.11	0.53	Number of total activities being considered

All correlations greater than 0.15 are significant at  $P < 0.05$ . Correlations greater than 0.20 are significant at  $P < 0.01$ .

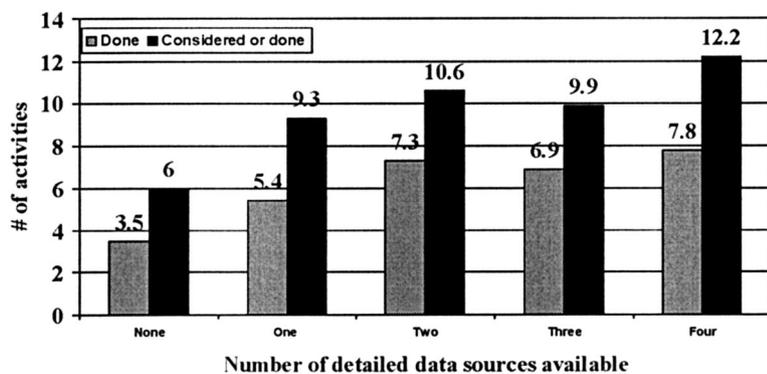


Fig. 3. Number of total activities considered or performed by the number of data resources available.

selves in improved productivity,” choices are influenced by both factors.

Not surprisingly, holding decision-makers accountable for outcomes results in significantly different behavior than their peers who are not held accountable. In this investigation, more accountability resulted in more VFAs. Whether accountability leads to more activities of all types (value-focused or otherwise) is not known. However, one may hypothesize that being held accountable for outcomes other than health care costs leads to decisions that focus on multiple outcomes as well. This suggests that giving decision-makers multiple accountabilities leads them to a broader set of solutions.

Medical decision-makers have a different role in decisions and accountability than nonmedical decision-makers. Medical respondents reported being held less accountable for and were less involved in policy formulation and benefit design. They also held beliefs that were less oriented toward a cost-focus. However, they reported similar levels of access to data and similar numbers of activities for the companies they worked for as nonmedical respondents.

The availability of more and better internal data seems to be a driving factor in value-focused decisions. Decision-makers whose companies had access to detailed information about absence, productivity, and dis-

ability in their workforce—in addition to health care cost data—reported twice as many VFAs on average. Although it is not possible to know whether having more data leads to more value orientation, or vice versa, it seems clear that organizations that value and make use of broad sources of information make choices that reflect consideration of other health-related outcomes in addition to cost.

It is important to highlight that decision-makers who have access to and are held accountable for productivity data and outcomes believe that productivity costs are more important than decision-makers without such information or accountability. Logically, if absence and productivity costs were much less than direct health care costs, access to productivity metrics would encourage greater focus on health care cost management. Instead, those with access to these metrics focus less on health care costs and more on indirect outcomes. Those with fewer sources of data (and health care cost data is the source reported most often) believe that health care costs are a bigger problem than lost productivity and respond with fewer value-focused choices. Indeed those with the fewest sources of detailed data did the fewest activities, reporting 3.5 on average. By helping employers obtain and use integrated health data, medical directors and HR/benefits directors can shift the health

care market from a focus on cost to a focus on total value.

## Limitations

Although responses were provided by a large number of employers, these employers cannot be considered a representative sample of all employers. By virtue of soliciting responses from members of ACOEM and employer coalitions, the original sampling universe reflects a certain type of organization. Respondents were likely to include those having an interest in this topic, resulting in responses that may reflect a higher rate of such activities than in the general population of employers.

Although the survey asked specifically about the intent of activities, respondents may not have chosen their responses in that way. For example, one item asked whether their company had chosen to provide flu shots to reduce absences. Respondents may have reported providing flu shots whether or not the primary purpose was to reduce absences. As such, the number of VFAs may have been over-reported to reflect the many other possible reasons for selecting these activities or programs.

The 32 activities chosen in this survey do not represent all possible value-focused activities. Although they were selected by individuals who are informed about such issues, other possible activities certainly exist. These can be used a comparison across respondents to help inform trends in activity, but not as a representation of all possible activities which might reflect a value-focused orientation.

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