

**Purchaser Preferences in Strategies to Improve  
Depression Treatment**

**Kathryn Rost**

Department of Mental Health Law and Policy  
College of Behavioral and Community Sciences  
University of South Florida, Tampa, FL 33612, USA  
kmrost@usf.edu

**Donna Marshall**

Executive Director, Colorado Business Group on Health  
Denver, CO 80228, USA

**Su Wang**

Department of Mental Health Law and Policy  
College of Behavioral and Community Sciences  
University of South Florida, Tampa, FL 33612, USA

**Stan Xu**

Institute for Health Research  
Department of Biostatistics and Informatics  
School of Public Health, University of Colorado Denver  
Denver, CO 80231, USA

**Brett Hagman**

Department of Mental Health Law and Policy  
College of Behavioral and Community Sciences  
University of South Florida, Tampa, FL 33612, USA

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### **Abstract**

**Objective:** As healthcare purchasers, employer support for high quality depression treatment is vital because models which improve outcomes also increase healthcare costs. This study compared employer perceptions about two strategies they can undertake to improve depression treatment: (1) purchasing a depression product and (2) encouraging health plans to improve their HEDIS scores for outpatient depression care.

**Methods:** Health benefit professionals representing 325 companies across the country evaluated the adoption potential of both strategies. The analysis used paired t-tests to compare adoption potential, followed by conditional logit analyses to examine organizational predictors.

**Results:** Over 45% of employers noted that both strategies have better potential for adoption than recent programs the company has adopted. While employers showed no preference for one strategy over the other, adoption potential differed by perceived prevalence of depression, distributed insurance risk, and risk tolerance for benefit innovation.

**Conclusions:** A sizable proportion of employers interested in depression in the workplace acknowledge their capacity to undertake two strategies to enhance quality of care. Efforts to increase employer involvement in assuring workers get improved depression treatment need to consider employer preference, given that both strategies can improve depression outcomes.

### **Introduction**

Policy analysts have long recognized that five stakeholder groups (purchasers, plans, practices, providers, and patients) have to actively support efforts to enhance primary care depression treatment for sustainable gains to be realized. (Pincus 2006) Multiple randomized trials (Gilbody 2006; Bower 2006) and demonstration projects (Dietrich 2004; Pincus 2005) have been conducted to build this support among plans, practices, providers, and patients with comparatively

little effort focused on purchasers. Purchaser support is vital because models that improve outcomes (Gilbody 2006; Bower 2006) also increase the direct costs of care (van Steenberg 2010), at least for the first year a depressed individual participates (Rost 2005b).

Employers represent a substantial segment of purchasers, offering health insurance coverage to 88.8% of individuals in the workforce (Crimmel 2006). In addition, employers have 'a dog in the race'. Studies demonstrate that 7.6% of employees suffer a major depressive episode each year (Birnbaum 2010) which substantially reduces their capacity to work as evidenced by increased absenteeism (Stewart 2003) and reduced productivity at work (Stewart 2003; Kessler 2006). Randomized trials demonstrate that interventions which improve depression treatment quality increase work functioning (Rost 2004) for selected employers to realize a return on investment (LoSasso 2006; Colorado Business Group on Health 2012) with competitively priced evidence-based products (Rost in press).

Most employers interested in ensuring their workers receive high quality treatment for depression have a choice of two options: they can purchase recently marketed depression products (Rost in press) or they can encourage their health plan to improve their Healthcare Effectiveness Data and Information Set (HEDIS) depression scores (NCQA 2012). Both high quality depression products (Rost 2004; Rost in press) and successful HEDIS initiatives (Rost 2005a) have the potential to improve employee functioning; however, employers have to make substantial efforts to integrate either strategy into their current benefit structure. Their willingness to take the next step in this process will likely be influenced by their initial perception of each strategy's potential for adoption.

In a study of health benefit professionals representing 325 employers across the county interested in depression in the workplace, we conducted a survey to explore employer perceptions of the adoption potential of both strategies, and their organizational predictors. Reflecting that this investigation represents a new line of inquiry, the study did not test *a priori* hypotheses.

## Methods

### Study Design

A detailed description of the study design has previously been published (Rost 2010). The research team expanded the previously published eligibility criteria to include all 64 National Business Coalition on Health (NBCH) members (Camillus 2008) and 12 related professional associations indicating an interest in the study. Participating coalitions recruited health benefit professionals (referred to in this manuscript as respondents) who represented public or private companies with 100 or more employees. Blinded employers were randomly invited to one of two presentations between April 2009 and May 2011 to learn more about state-of-the-art strategies to improve depression in the workplace. One presentation focused on employer purchase of a depression product, while the other presentation focused on employer initiatives to improve acute outpatient HEDIS depression scores. Three hundred twenty five of 403 eligible employers (80.6%) indicating interest in the study attended the assigned presentation. Data analyzed in this paper were collected in computerized interviews before employers learned which strategy their presentation addressed. The protocol and the informed consent that employers signed were approved by the Institutional Review Boards at Florida State University and the University of South Florida.

### Variable Definition

#### Capacity to Adopt

Respondents read the following descriptions:

*Imagine that your organization purchased a depression product. By depression product, we mean a program to assure all employees with depression have the opportunity to get high quality care for the condition by confidentially providing education, monitoring and clinician feedback. The program costs your organization \$800/year for each participating employee. You know two other companies who told you they thought that the product was worthwhile.*

*HEDIS scores are used by employers to evaluate the performance of health plans/networks for a wide range of health issues, including depression. HEDIS scores for depression in virtually all plans/networks*

*need substantial improvement. Imagine that your supervisor assigned you an intern to work with your most subscribed health plan to [improve its depression HEDIS score by increasing] the proportion of depressed employees who complete a three month course of antidepressants once they begin them. You know two other companies who told you they thought that efforts in this area were worthwhile.*

Following each description, respondents were asked: *Managers often face the following issues when an organization considers a new health program. How would you rate your ability to convince your organization to adopt this program?* Response categories included much worse, worse, better and much better than programs our organization has recently undertaken, and don't know.

*Predictor Variables*— Predictor variables included 9 structural and 8 health benefit characteristics whose measurement is detailed at <http://www.caremanagementfordepression.org/DMW>. Structural characteristics included: (1) geographic spread defined as the number of US sites in which company employs full time, non-unionized employees; (2) size defined as small (100 to 500 full-time employees), medium (501 to 2500 full-time employees) or large (2501 plus full-time employees); (3) type defined as for profit, not-for-profit, or public sector; (4) age defined as years of existence of oldest segment of company; (5) absenteeism monitoring defined as company having a concrete way of measuring absenteeism in any part of workforce; (6) productivity monitoring defined as company having a concrete way of measuring productivity at work in any part of workforce as well as purchasing descriptors including (7) purchasing centralization defined as health benefit decision making in centralized location for company (yes/no); (8) purchasing localization defined as health benefit decision making in respondent's location (yes/no); and (9) coalition [NBCH] affiliation (yes/no).

Health benefit characteristics: (1) expected prevalence of depression in company; (2) expected impact of depression in the workplace ( $\alpha = 0.69$ ); (3) number of carriers currently offering health plans to employees; (4) insurance risk defined as medical benefits being fully insured, self-insured, or mixture; (5) company contribution to Employee Assistance Program [EAP] (yes/no); (6) risk tolerance for benefit innovation ( $\alpha = 0.65$ ); (7) resources for new health benefits ( $\alpha$

= 0.77); and (8) expected percent rise in health care premiums for next calendar year.

### Data Analysis

The research team used within-subject t-tests to compare adoption potential between a depression product and a HEDIS initiative for the primary analysis and for a sensitivity analysis in 38 respondents who indicated that their most subscribed health plan provided their HEDIS scores in order to reduce the likelihood that respondents preferred depression products because they were unfamiliar with HEDIS. The research team conducted exploratory analyses to investigate organizational predictors of employer preference by including predictors significant at  $p < .20$  in bivariate analysis into cumulative logit models for ordinal outcomes after determining that data met the test for proportional odds assumption.

### Results

Respondents were 69.8% female, 13.6% minority (African American, Hispanic, Asian and other), reporting a median age of 41-50 years old and a mean duration in their current position of 7.4 (SD=6.5) years. At baseline, 13.8% of respondents had discussed at least one component of a depression product with a vendor in the past year; 10.3% of respondents had discussed at least one component of HEDIS depression indicators with their most subscribed plan. Organizational characteristics are displayed in Table 1.

Table 1. Organizational Characteristics (n=325)+

<i>Structural Characteristics</i>	
Geographic spread (SD)	22.7 (109.0)
Size	
% small (100 to 500 employees)	33.5

Table 1. Organizational Characteristics (n=325)+ (continued)

% medium (501 to 2500 employees)	30.8
% large (2501 plus employees)	35.7
Type	
% for-profit	56.1
% not-for-profit	23.5
% public sector	20.4
Company age (SD)	74.8 (47.1)
% with any absenteeism monitoring	73.2
% with any productivity at work monitoring	56.4
% centralized decision making	93.8
% local decision making	85.1
% coalition (NBCH) member	65.5
 <i>Health Benefit Characteristics</i>	
Median depression prevalence	11-15%
Mean depression impact (SD) *	2.4 (0.5)
Mean number of health plan carriers (SD)	2.2 (2.4)
Insurance Risk	
% fully insured	24.1
% self-insured	46.2
% mixture of full and self-insured	29.7
% with Employee Assistance Program	80.5
Mean risk tolerance (SD) *	2.3 (0.5)
Mean new health benefit resources (SD) *	2.5 (0.7)
Mean expected % premium increase (SD)	7.6 (5.4)

\*Scale score ranges from 1 (low) to 4 (high)

+ Sample size varies from 304 to 325 due to missing data.

In descriptive analysis, 147 respondents (45.2%) reported better/much better capacity to convince organization to adopt a depression program than programs recently undertaken; in comparison, 153 respondents (47.1%) reported better/much better capacity to convince organization to adopt a HEDIS initiative than initiatives recently undertaken. Preferences for capacity to influence adoption did not significantly differ between depression products and HEDIS initiatives in either the primary comparison (mean= 0.01,  $t=0.30$ ,  $p=.79$ ) or the sensitivity analysis (mean= -0.12,  $t=-1.00$ ,  $p=.32$ ).

Exploratory investigation of organizational predictors indicated that respondents estimating a greater depression prevalence ( $b=0.40$ ,  $SE=.39$ ,  $p=.04$ ,  $OR=1.49$ ), noting their company offered a mixture of fully and self-insured plans ( $b=0.65$ ,  $SE=0.32$ ,  $p=.04$ ,  $OR=1.92$ ) and perceiving a higher tolerance for risk in benefit innovation ( $b=0.57$ ,  $SE=0.28$ ,  $p=.04$ ,  $OR=1.77$ ) reported a greater capacity for convincing their organization to adopt a depression product over a HEDIS initiative.

Table 2: Organizational Predictors of Capacity to Adopt

Parameter	Beta	SE	Pr > ChiSq	95% CI		
				OR	Lower	Upper
Intercept	0	-1.95	0.95	0.04		
Intercept	1	-5.78	1.04	<.0001		
Productivity monitoring	0.35	0.21	0.10	1.42	0.94	2.15
Local decision-making	-0.75	0.41	0.07	2.12	0.94	4.77
Prevalence	0.40	0.19	<b>0.04*</b>	1.49	1.02	2.19
Insurance Risk						
Full vs. self-insured	0.02	0.34	0.96	1.02	0.52	1.98
Mix vs. self-insured	0.65	0.32	<b>0.04*</b>	1.92	1.03	3.58
Risk tolerance	0.57	0.28	<b>0.04*</b>	1.77	1.03	3.06

*Note:* Covariates that did not meet criteria for inclusion in the model: spread, size, type, age, absenteeism monitoring, centralized decision-making, coalition [NBCH] membership, depression impact, carriers, EAP, new benefit resources and expected premium increase.

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\*  $p < .05$

## **Discussion**

Health benefit professionals interested in depression in the workplace reported encouraging views about depression products and HEDIS initiatives, with over 45% recognizing that both strategies have greater potential for adoption than recent programs the company has adopted. While the group reported comparable likelihood of adoption for the two strategies, employers who preferred depression product adoption reported greater expected depression prevalence, distributed insurance risk, and risk tolerance.

Perceptions of depression prevalence appear to influence preference for a depression product more than perceptions of depression impact in the workplace, reflecting the pressure that benefits professionals face to import programs that serve the widest possible audience. Distributed insurance risk may identify employers willing to consider financially complex products to meet health needs. Risk tolerance identifies companies whose benefit culture supports experimentation, a characteristics repeatedly linked to innovation (Nystrom 2002; Anderson 1998). Other results do not appear to be consistent with the innovation literature, which demonstrates that organizational size (Camizon-Zonoza 2004), age (Hirth 2000; Knudsen 2004; Li 2004; Roman 2002), and financial latitude (Castle 2001; Glandon 1995; Goes 1997; Teplensky 1995; Walston 2001; Wang 2005; Westphal 1997) predict corporate preference for innovative products. Clearly, further research is needed to explain these findings as well as to examine predictors of actual depression product purchase.

We acknowledge limitations in the study's ability to compare one strategy to the other, limitations inherent in the strategies themselves. Each description notes that the strategy improves depression treatment quality and is recommended by employer peers; however, the depression product strategy presents information on costs, while the HEDIS strategy does not. The research team selected this approach because employers generally have to have money in the benefit budget to consider the purchase of a depression product; in contrast, employers interested in encouraging a health plan to improve its HEDIS depression scores do not have to budget an immediate cost. While health plans may ask employers to eventually contribute to the HEDIS improvement costs, the limited literature in the area (Schoenbaum 2004) indicates that health plans are willing to take into account purchaser priorities in the accreditation-required quality improvement initiatives they select, but few employers ask. We also acknowledge that the study was not designed to characterize the capacity of all American employers to adopt depression improvement strategies because we recruited a purposive sample. A representative sample of all American employers would no doubt report far less capacity. As implementation scientists, we propose that the field needs to purposively study 'ready to change' organizations to better inform efforts to 'jump-start' movement in early innovators.

In summary, this study contributes to the policy literature by demonstrating that over 45% of health benefits professionals interested in depression in the workplace recognize that both depression products and HEDIS initiatives have greater potential for adoption than recent programs their companies have adopted. It is important to determine whether and how such optimism translates into changes in health care benefit design over time.

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