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### Background:

Unaffordable healthcare is symptomatic of three root causes:

- (1) An inefficient healthcare delivery system
- (2) American's poor health habits
- (3) Medical illiteracy of patients

Incentives to improve consumer health behaviors and medical provider adherence to guidelines hold a promising key to addressing root causes and making healthcare affordable and accessible to all Americans.

The MedEncentive® Information Therapy Program has several years' experience in development and successful testing of using financial rewards to both providers and patients encouraging "mutual accountability". Their key to success also entails creating an environment that includes health promotion or a "Culture of Health" and "triangulating" the interests of the health insurer, provider and consumer. MedEncentive® uses care guidelines developed by leading medical schools plus patient content from Healthwise®, a national resource for consumer-grade health information. The term "information therapy", and its symbol "Ix™", were coined by Healthwise® to mean: "providing patients with the right information at the right time, in understandable terms, so patients can make an informed decision about their health."

### Methods:

This study independently examined the Information Therapy Program's effectiveness, during a five year period across 7 companies, on key outcomes and effect modifiers of:

- (1) provider and patient participation
- (2) patient satisfaction and Ix® prescription compliance
- (3) changes in overall healthcare costs

❖ Secondary, Retrospective Cohort Analysis was conducted.

❖ All participant data was transmitted to the Investigators from the Ix® Program.

❖ Study was approved by KUSM-W IRB and qualified for a waiver of consent.

### Preliminary Results:

- (1) Doctor prescribed information rates higher than system generated information (Table 1)
- (2) Patient participation rates increased over time (Table 2, A)
- (3) Physician participation rates decreased over time (Table 2, B)
- (4) Ix rated as moderate to highly beneficial by patient participants (Table 2, C)
- (5) Creating a "culture of health" impacts health outcomes, utilization and cost containment for plan participants (Table 2, D)
- (6) Improved cost containment for 5 of 7 trial plans (Table 2, E)

Table 1: Information Therapy (Ix) Process for Medical Conditions

When Ix Prescribed	Ix by Outpatient Encounter	Clinician (i.e. MD, DO, RN, CNP, PA, etc.)	MedEncentive System
During visit or prior to office visit claim reaching MedEncentive	Point of Service	Clinician initiates process and chooses Ix	
2-30 days after office visit	Claim Initiated	Clinician is notified after the fact and chooses Ix	MedEncentive uses claim to alert clinician
6-30 days after office visit	System Initiated	Clinician does not participate	MedEncentive system generates Ix to patient from claim diagnosis

Figure 1: Conceptual Model

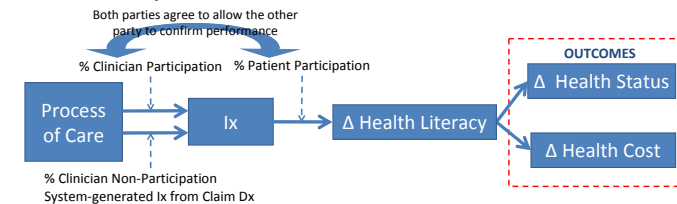


Table 2: Preliminary Results from 5 Year Data Analysis

Company	A. Patient Participation Rate	B. Physician Participation Rate	C. Rating of Information Therapy Benefit to Personal Health (1= low; 5= high)	D. Culture of Health (1= low; 10 = high)	E. Did Employer Achieve a Measure of Cost Containment and ROI After Implementation?
	First Year	Most Recent Year			
1	43.8%	35.5%	4.27	6	Yes
	84.1%	53.6%			
2	37.0%	43.5%	4.23	<3	Cannot tell
	53.5%	29.5%			
3	56.0%	41.2%	4.14	4	Yes
	65.4%	28.7%			
4	51.3%	8.7%	4.06	<3	Yes
	52.3%	7.6%			
5	61.6%	57.9%	4.03	4	Yes
	76.1%	46.5%			
6	59.2%	2.3%	3.93	4	Yes
	61.5%	2.4%			
7	39.6%	0.8%	4.03	3	Too early to tell
	49.2%	1.3%			
<b>ALL TRIAL PLANS</b>	<b>N/A</b>	<b>N/A</b>	<b>4.07</b>	<b>3.4</b>	<b>5 OF 7 TRIAL EMPLOYERS</b>

"I have learned so much from the MedEncentive program so much more than from what my doctors are telling me."

Patient

"I was doing this for the \$ but found learning more very helpful."

Patient

"I had the symptoms of a sinus infection again. With the information (sp) I learned here; to contain it before it got any worse, I used the therapies I learned from my last lessons and I didn't have to go to the doctor. The infection got better..."

Patient

"We are very impressed with the MedEncentive program. The additional information has helped us understand our health conditions more fully. We can gain this help by using our own time, not being rushed with the Dr's time. We also can refer (sp) back to this info as we need to do so. We are more relaxed as we deal with health issues (sp) with this program. Makes life less stressful. Of course the rewards have been a life savior (sp) to our budget as well."

Patient

### Limitations:

There were several limitations to this study as well as areas of opportunity for future research.

- (1) Current literacy outcomes are implied by pt. assessment of benefits to personal health. More direct measures of literacy need to be examined.
- (2) Findings are not generalizable to a broader population.
- (3) Need to have a comparison group to determine impact.
- (4) Future studies should focus on identification of disease states for vulnerable populations.
- (5) The role of physicians as an effect modifier needs to be further investigated.

### Implications:

- (1) Medically informed and empowered person is better equipped to self-manage his/her health, which leads to lower health care costs.
- (2) Most people need to be financially incented to become health literate.
- (3) Health literacy is advanced when patients are financially rewarded to read pertinent health information and are held accountable for the knowledge by their doctor.
- (4) Web-based applications have a viable future for improving health literacy.
- (5) Doctors and patients are motivated to respond to one another in ways that improve health literacy, health and health care, which leads to cost containment.