

PUBLIC SAFETY ENTERPRISE
HEALTH RISK MANAGEMENT
CASE STUDY:
TRANSFERRING AND REDUCING RISK

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ABSTRACT

For a public safety enterprise to effectively manage the health of its members, the organization's fiduciaries must commit to an unceasing effort to find alternative cost-effective financial strategies. Simultaneously, they have to elicit the utmost in cooperation from their members to safeguard their health through periodic prophylactic encounters which will trigger early warnings to seek appropriate and necessary medical intervention as well as stressing workplace safety.

The firm's fiduciaries need to assess whether the mixture of insurance, assets held in trust and member cost-sharing strikes the right balance to maintain and manage good health and thereby maximize productivity. At the same time, sound human resources management must ensure the communications regarding periodic changes in health care design and funding promote recruiting efforts and achieve desirable retention statistics.

KEYWORDS: Transfer and Reduce

INTRODUCTION

In an era of ever increasing healthcare costs, it is the fiduciary duty of employers sponsoring medical plans to explore a range of creative cost-containment alternatives. In the course of their due diligence, plan sponsors must consider in what ways the unknown amount of health care cost, hence the risk, incurred by their employees and their families can be either transferred, avoided altogether or reduced if it is not practical to either transfer or avoid the risk.

Historically, employers entered into contracts with health insurance companies whereby all the risk associated with the health care benefits offered to employees would be transferred to the contracting carrier. Unfortunately, this funding mechanism whereby the cost was locked in on a per employee basis for the contractual period (typically twelve months) did nothing to reduce the explosive volatility associated with the underlying cost of benefits.

Double digit percentage increases in cost per employee from one contract year to the next have forced employers sponsoring such plans to reexamine the benefits provided and their sources of funding. Given the ongoing tight labor market, employers have been unwilling to eliminate the risk altogether by canceling their healthcare benefits programs. This is due to adverse reaction when it comes to recruiting and retention of employees.

That leaves employers with the alternatives of either transferring some but not all of the risk or reducing the risk by emphasizing managed health rather than managed care. The principal health risk management tools used in these endeavors are medical excess stop loss insurance purchased from specialty carriers and prophylactic health risk assessment appraisals performed by competent medical professionals.

Two basic principles are adhered to in the employment of these tools. They are the following:

1. Encounters between consumers and providers of health care must be triggered by medical necessity based on best practices and recognized health care guidelines (e.g., Milliman) and supported by good preventive medicine.
2. Adequate oversight and formal peer review exist throughout the health care delivery system managing both the health and care of consumer members.

METHODOLOGY

A two-pronged strategy is employed to control healthcare costs and yet not stifle the productivity and creativity of the enterprise's members. First, the financial decision-making process looks at large recent credible claims obtained from the firm's third party administrator responsible for the adjudication and payment of claims. Parallel with this step, an extensive communications campaign launches a periodic recurring schedule of personal medical interviews. They are conducted by an experienced team of medical professionals retained to conduct voluntary health risk assessments (HRAs) primarily as a means of early intervention so that those in need of immediate treatment (suggestive of a potential large claim) receive it in timely, quality fashion.

METHODOLOGY (continued)

An analysis of individual claims in excess of \$25,000 (net of member cost-sharing) paid over a 10 month period is done on both a paid and incurred basis. Then the annual accrual basis cost of transferring the risk associated with these specific large claims on a laddered basis up to \$500,000 is determined using the actual distribution of large claims. This allows the decision-makers within the enterprise to make an informed decision on how much risk is to be managed internally.

The HRAs which take approximately 25-30 minutes are done at the firm's work site free of charge to employee during regular duty hours. They consist of a personal medical history questionnaire and four (4) tests. A follow-up consult is provided if warranted depending on the results as evaluated by the team. Blood pressure, heart rate, blood sugar and cholesterol are measured and noted in comparison to current healthcare referral guidelines as to whether they are high, hence denoting high health risks. A summary report on the HRA results is supplied to the decision-makers which gives them a base line as to the wellness of the work force. It also quantifies the estimated cost savings associated with those at risk employees getting treatment now!

DISCUSSION

The transferring of risk associated with large claims to a medical excess stop loss reinsurer can take shape in a myriad of ways. The questions that have to be answered include the following:

- Should the enterprise be protected from the cost of shock claims in the aggregate (e.g., recoveries beginning when actual claims have exceeded 125% of expected claims!) through reinsurance?
- Which healthcare claims will be covered (e.g., medical, surgical, dental, vision, prescription drugs, mental health, substance abuse)?
- Will surcharges imposed by county and state governments as a means of subsidizing the cost of indigent care be covered?
- How will immature first year claims and runout from prior periods be recognized?
- Will the firm want to add an intermediate layer of retention, referred to herein as aggregating specific?
- Most importantly, how much risk is the firm willing to absorb as a result of self-insuring its healthcare risk, both on and off the job (a frequently cited measure is the million dollar plus cost of neonatal care for premature simultaneous births such as twins or triplets)?
- Which medical excess stop loss reinsurers offer creative pooling in setting their premiums as well as providing early intervention case management services?
- Does the medical excess stop loss reinsurer pay the providers directly or must the policyholder wait for reimbursement?

DISCUSSION (continued)

The reduction of risk associated with large claims through prophylactic measures such as “recommended but voluntary” HRAs likewise represent a substantial investment as an additional fixed cost. As with stop loss, the charges are generally on a per capita basis with travel and the optional cost of vaccines such as influenza (and their administration) being billed directly.

Important questions to ask in the evaluation of HRA vendors are the following:

- What are the references of the team of medical professionals?
- What savings have resulted for employers of similar size and function within the economy as a result of the introduction of the HRA team?
- What has the feedback been from employees volunteering for an HRA?
- Is the team prepared to serve a multi-state employer in a matter of weeks?

RESULTS

Transfer of Risk

Including covered dependents, the population studied numbered about 3,700, with about 30% on retirement. The Appendices contain a summary breakdown of the demographics as well as the shock claim distribution. They also illustrate the laddered net stop loss premiums on both a paid and incurral basis using the actual data.

Using an annual specific attachment point of \$250,000 as a means of validating the analysis, we wish to establish the amount to be accrued on the firm’s books as a measure of the liability. Using the arithmetic mean of the net stop loss premiums on both a paid and incurral basis as an estimate, we obtain \$251,250.11 ($= (\$176,125.10 + \$326,375.12) / 2$).

It is instructive to compare this with a live quote for specific stop loss coverage. Specifically (no pun intended), the current annual premium for an annual specific attachment point of \$250,000 on a paid basis with an aggregating specific \$60,000 intermediate layer of risk retention (by the enterprise) is \$269,438. The 7.24% excess is attributable to both profit and expense components of the gross premium.

Reduction of Risk

Before the HRA team is turned loose so to speak on the employee during regular duty hours, it is necessary to give them some background on the epidemiology of the population. That briefing will give the medical professionals a heads-up as to what to look for and make the use of their well-compensated services all the more efficient.

RESULTS (continued)

The actual distribution of 64 shock claims observed over a 10 month period runs the gamut of a Physician's Desk Reference (PDR). Malignant neoplasms (of the bone, breast, colon, kidney and lung) were the number one diagnosis accounting for nine claims. Other multiple diagnoses challenging one's use of a PDR in many cases were bone fractures, cellulitis, coronary atherosclerosis, knee sprain, osteoarthritis, renal failure and viral meningitis.

Armed with this information, the team interviewed 230 employees during the spring of 2005 and another 132 employees during the summer of 2005 for a total of 362 assessments (about 38% of the total active population). The number of employees identified as high health risks prompting immediate physician referrals due to blood pressure, blood sugar and cholesterol were 27, 5 and 21 respectively (15% of those examined). These risks if left untreated result in congestive heart failure, diabetes and cardiac problems costing between \$980,000 and \$1.3 million annually. Immediate treatment including the cost of the HRA team is a minimal fraction of that. For example, a typical course of treatment including an office visit, lab tests and prescribed medications will run about \$1,000. Hence, the net annual savings approaches \$1.0 million, certainly nothing to sneeze at.

CONCLUSIONS/RECOMMENDATIONS

It may be wishful thinking, but if the employees understand and embrace the efforts of the HRA team, it is conceivable that over the rest of the decade, it may not be necessary to transfer risk. A growing sense of awareness of high health risks, how to avoid them and how to deal with them, may permeate the ranks of the enterprise reinforced by the commitment of its decision-makers.

We can hope that the percentage of assessments performed periodically approaches 100% with or without mandatory directives. A concerted effort to provide for continuity within the HRA team will help attainment of this goal. It demonstrates to the employees being interviewed that their employer cares about them and builds trust several ways.

We would recommend that the policy makers with the aid of their healthcare advisors and consultants set an ambitious goal of raising the annual individual specific healthcare retention cost to \$500,000 by 2010. That would eliminate a quarter of a million dollars in fixed costs in today's dollars.

APPENDICES

Demographics:

	Category of Member	Number of Members
1	active without dependents	323
2	retired without dependents	305
3	active with dependents	637
4	retired with dependents	315
	Total	1580

Shock Claim (> \$25,000)	2004	Amt Pd	Projected Paid
Number	Mo. Incurred	through 11/04	through 1/05
1	February	\$ 61,468.28	\$ 73,761.94
2	February	\$ 48,624.55	\$ 58,349.46
3	February	\$ 43,540.09	\$ 52,248.11
4	February	\$ 32,334.75	\$ 38,801.70
5	February	\$ 41,023.57	\$ 49,228.28
6	March	\$ 84,118.56	\$ 102,811.57
7	March	\$ 298,955.46	\$ 365,390.01
8	March	\$ 115,493.08	\$ 141,158.21
9	March	\$ 37,397.60	\$ 45,708.18
10	March	\$ 377,169.64	\$ 460,985.12
11	April	\$ 107,406.38	\$ 134,257.98
12	April	\$ 57,547.38	\$ 71,934.23
13	April	\$ 149,518.85	\$ 186,898.56
14	April	\$ 79,578.36	\$ 99,472.95
15	April	\$ 67,922.51	\$ 84,903.14
16	April	\$ 124,445.22	\$ 155,556.53
17	April	\$ 43,782.64	\$ 54,728.30
18	April	\$ 177,720.70	\$ 222,150.88
19	April	\$ 30,187.77	\$ 37,734.71
20	May	\$ 30,391.80	\$ 39,075.17
21	May	\$ 36,282.96	\$ 46,649.52
22	June	\$ 32,427.88	\$ 43,237.17
23	June	\$ 36,991.99	\$ 49,322.65
24	June	\$ 30,449.45	\$ 40,599.27
25	June	\$ 31,019.66	\$ 41,359.55
26	June	\$ 82,808.70	\$ 110,411.60
27	June	\$ 26,428.90	\$ 35,238.53
28	July	\$ 70,551.98	\$ 98,772.77
29	July	\$ 44,059.17	\$ 61,682.84
30	July	\$ 53,004.14	\$ 74,205.80
31	July	\$ 28,957.25	\$ 40,540.15
32	July	\$ 95,149.15	\$ 133,208.81
33	July	\$ 43,292.59	\$ 60,609.63
34	August	\$ 45,056.49	\$ 67,584.74
35	August	\$ 34,241.71	\$ 51,362.57
36	August	\$ 68,106.64	\$ 102,159.96
37	August	\$ 33,734.09	\$ 50,601.14
38	August	\$ 51,111.47	\$ 76,667.21
39	August	\$ 61,252.08	\$ 91,878.12
40	August	\$ 30,800.43	\$ 46,200.65
41	August	\$ 53,907.12	\$ 80,860.68
42	August	\$ 43,645.77	\$ 65,468.66
43	September	\$ 27,214.93	\$ 45,358.22
44	September	\$ 54,085.13	\$ 90,141.88
45	September	\$ 40,083.18	\$ 66,805.30
46	September	\$ 120,942.92	\$ 201,571.53
47	September	\$ 33,920.90	\$ 56,534.83
48	September	\$ 80,210.45	\$ 133,684.08

Shock Claim (> \$25,000)	(Continued)	Amt Pd	Projected Paid
Number	Mo. Incurred	through 11/04	through 1/05
49	September	\$ 36,740.11	\$ 61,233.52
50	September	\$ 31,457.24	\$ 52,428.73
51	September	\$ 30,543.89	\$ 50,906.48
52	October	\$ 29,761.45	\$ 59,522.90
53	October	\$ 32,297.60	\$ 64,595.20
54	October	\$ 115,629.30	\$ 231,258.60
55	October	\$ 66,266.62	\$ 132,533.24
56	October	\$ 64,654.51	\$ 129,309.02
57	October	\$ 28,919.02	\$ 57,838.04
58	November	\$ 42,842.48	\$ 128,527.44
59	November	\$ 30,155.48	\$ 90,466.44
60	November	\$ 25,012.27	\$ 75,036.81
61	November	\$ 25,027.81	\$ 75,083.43
62	November	\$ 27,353.26	\$ 82,059.78
63	November	\$ 26,738.59	\$ 80,215.77
64	November	\$ 29,672.97	\$ 89,018.91
	Totals	\$4,041,436.92	\$5,997,907.15

Specific Stop Loss Threshold	Paid Claims over threshold	Composite Monthly Rate	Single Monthly Rate	Family Monthly Rate
25000	\$ 2,441,436.92	\$ 128.77	\$ 63.61	\$ 171.75
30000	\$ 2,146,350.47	\$ 113.20	\$ 55.92	\$ 150.99
40000	\$ 1,734,975.16	\$ 91.51	\$ 45.20	\$ 122.05
50000	\$ 1,439,024.63	\$ 75.90	\$ 37.49	\$ 101.23
60000	\$ 1,209,369.39	\$ 63.79	\$ 31.51	\$ 85.08
70000	\$ 1,029,698.75	\$ 54.31	\$ 26.83	\$ 72.44
80000	\$ 889,568.41	\$ 46.92	\$ 23.18	\$ 62.58
90000	\$ 782,430.70	\$ 41.27	\$ 20.39	\$ 55.04
100000	\$ 687,281.55	\$ 36.25	\$ 17.91	\$ 48.35
110000	\$ 599,875.17	\$ 31.64	\$ 15.63	\$ 42.20
120000	\$ 528,752.79	\$ 27.89	\$ 13.78	\$ 37.20
130000	\$ 483,364.65	\$ 25.49	\$ 12.59	\$ 34.00
140000	\$ 443,364.65	\$ 23.38	\$ 11.55	\$ 31.19
150000	\$ 403,845.80	\$ 21.30	\$ 10.52	\$ 28.41
160000	\$ 373,845.80	\$ 19.72	\$ 9.74	\$ 26.30
170000	\$ 343,845.80	\$ 18.14	\$ 8.96	\$ 24.19
180000	\$ 316,125.10	\$ 16.67	\$ 8.24	\$ 22.24
190000	\$ 296,125.10	\$ 15.62	\$ 7.72	\$ 20.83
200000	\$ 276,125.10	\$ 14.56	\$ 7.19	\$ 19.42
210000	\$ 256,125.10	\$ 13.51	\$ 6.67	\$ 18.02
220000	\$ 236,125.10	\$ 12.45	\$ 6.15	\$ 16.61
230000	\$ 216,125.10	\$ 11.40	\$ 5.63	\$ 15.20
240000	\$ 196,125.10	\$ 10.34	\$ 5.11	\$ 13.80
250000	\$ 176,125.10	\$ 9.29	\$ 4.59	\$ 12.39
260000	\$ 156,125.10	\$ 8.23	\$ 4.07	\$ 10.98
270000	\$ 136,125.10	\$ 7.18	\$ 3.55	\$ 9.58
280000	\$ 116,125.10	\$ 6.12	\$ 3.03	\$ 8.17
290000	\$ 96,125.10	\$ 5.07	\$ 2.50	\$ 6.76
300000	\$ 77,169.64	\$ 4.07	\$ 2.01	\$ 5.43
310000	\$ 67,169.64	\$ 3.54	\$ 1.75	\$ 4.73
320000	\$ 57,169.64	\$ 3.02	\$ 1.49	\$ 4.02
330000	\$ 47,169.64	\$ 2.49	\$ 1.23	\$ 3.32
340000	\$ 37,169.64	\$ 1.96	\$ 0.97	\$ 2.61
350000	\$ 27,169.64	\$ 1.43	\$ 0.71	\$ 1.91
360000	\$ 17,169.64	\$ 0.91	\$ 0.45	\$ 1.21
370000	\$ 7,169.64	\$ 0.38	\$ 0.19	\$ 0.50
380000	\$ -	\$ -	\$ -	\$ -
390000	\$ -	\$ -	\$ -	\$ -
400000	\$ -	\$ -	\$ -	\$ -
410000	\$ -	\$ -	\$ -	\$ -
420000	\$ -	\$ -	\$ -	\$ -

Specific Stop Loss Threshold	Incurred Claims over threshold	Composite Monthly Rate	Single Monthly Rate	Family Monthly Rate
25000	\$ 4,397,907.15	\$ 231.96	\$ 114.59	\$ 309.38
30000	\$ 4,077,907.15	\$ 215.08	\$ 106.25	\$ 286.87
40000	\$ 3,447,057.04	\$ 181.81	\$ 89.81	\$ 242.49
50000	\$ 2,898,853.40	\$ 152.89	\$ 75.53	\$ 203.93
60000	\$ 2,454,332.84	\$ 129.45	\$ 63.95	\$ 172.66
70000	\$ 2,096,352.97	\$ 110.57	\$ 54.62	\$ 147.47
80000	\$ 1,799,663.57	\$ 94.92	\$ 46.89	\$ 126.60
90000	\$ 1,562,605.29	\$ 82.42	\$ 40.71	\$ 109.93
100000	\$ 1,371,873.13	\$ 72.36	\$ 35.74	\$ 96.51
110000	\$ 1,216,901.60	\$ 64.18	\$ 31.71	\$ 85.61
120000	\$ 1,076,490.00	\$ 56.78	\$ 28.05	\$ 75.73
130000	\$ 938,653.54	\$ 49.51	\$ 24.46	\$ 66.03
140000	\$ 844,969.43	\$ 44.57	\$ 22.02	\$ 59.44
150000	\$ 773,811.22	\$ 40.81	\$ 20.16	\$ 54.44
160000	\$ 708,254.69	\$ 37.36	\$ 18.45	\$ 49.82
170000	\$ 648,254.69	\$ 34.19	\$ 16.89	\$ 45.60
180000	\$ 588,254.69	\$ 31.03	\$ 15.33	\$ 41.38
190000	\$ 531,356.13	\$ 28.03	\$ 13.84	\$ 37.38
200000	\$ 481,356.13	\$ 25.39	\$ 12.54	\$ 33.86
210000	\$ 439,784.60	\$ 23.20	\$ 11.46	\$ 30.94
220000	\$ 399,784.60	\$ 21.09	\$ 10.42	\$ 28.12
230000	\$ 367,633.72	\$ 19.39	\$ 9.58	\$ 25.86
240000	\$ 346,375.12	\$ 18.27	\$ 9.02	\$ 24.37
250000	\$ 326,375.12	\$ 17.21	\$ 8.50	\$ 22.96
260000	\$ 306,375.12	\$ 16.16	\$ 7.98	\$ 21.55
270000	\$ 286,375.12	\$ 15.10	\$ 7.46	\$ 20.15
280000	\$ 266,375.12	\$ 14.05	\$ 6.94	\$ 18.74
290000	\$ 246,375.12	\$ 12.99	\$ 6.42	\$ 17.33
300000	\$ 226,375.12	\$ 11.94	\$ 5.90	\$ 15.92
310000	\$ 206,375.12	\$ 10.88	\$ 5.38	\$ 14.52
320000	\$ 186,375.12	\$ 9.83	\$ 4.86	\$ 13.11
330000	\$ 166,375.12	\$ 8.78	\$ 4.33	\$ 11.70
340000	\$ 146,375.12	\$ 7.72	\$ 3.81	\$ 10.30
350000	\$ 126,375.12	\$ 6.67	\$ 3.29	\$ 8.89
360000	\$ 106,375.12	\$ 5.61	\$ 2.77	\$ 7.48
370000	\$ 90,985.12	\$ 4.80	\$ 2.37	\$ 6.40
380000	\$ 80,985.12	\$ 4.27	\$ 2.11	\$ 5.70
390000	\$ 70,985.12	\$ 3.74	\$ 1.85	\$ 4.99
400000	\$ 60,985.12	\$ 3.22	\$ 1.59	\$ 4.29
410000	\$ 50,985.12	\$ 2.69	\$ 1.33	\$ 3.59
420000	\$ 40,985.12	\$ 2.16	\$ 1.07	\$ 2.88
430000	\$ 30,985.12	\$ 1.63	\$ 0.81	\$ 2.18
440000	\$ 20,985.12	\$ 1.11	\$ 0.55	\$ 1.48
450000	\$ 10,985.12	\$ 0.58	\$ 0.29	\$ 0.77
460000	\$ 985.12	\$ 0.05	\$ 0.03	\$ 0.07
470000	\$ -	\$ -	\$ -	\$ -