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BENEFIT SOLUTIONS COMPANY
"YOUR TRUSTED CONNECTION"

Consumer-centric Employee Benefits: Economics 101

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Overview

Consumer-centric employee benefits represents a fundamental shift in the focus away from passive benefits participation and toward a model in which benefits consumers, that is employees and their families, take a more active role in choosing and using their benefits. This consumer-centric approach to benefits is well founded in economic theory and is supported by marketplace dynamics. The purpose of this paper is three-fold: 1) to lay out the economic underpinnings for consumer-centric benefits; 2) to define consumerism in practical marketplace terms; and 3) to dispel the myths and misconceptions currently circulating about this topic.

In stark contrast to the "planned economy" of employee benefits of the last century which created inefficiencies and higher costs at reduced quality, consumer-centric benefits is based on a ***market economy*** where businesses and consumers decide of their own volition whether and what they will purchase. Employers invest in the underlying benefits "infrastructure" and the economy operates based on employee demand. That demand, in turn, is driven by ***utility*** -- a model in which preferences of economic entities (in our case benefits) are expressed with regard to risk and return. The consumer-centric benefits model recognizes that each employee must maximize utility by expressing his or her appetite for risk balanced against the economic return.

The theory is borne out by examining the ways in which individuals actually spend their own money in the insurance ***marketplace***. It is important to note that while Consumer Driven Healthcare (CDH) is a center-piece of this new model, consumer-centric benefits encompasses a wide range of benefits plans. And in a larger sense, it is less about the plans and much more about the marketplace where consumers exercise more choice and more control over their benefits purchases.

1. Utility Maximization

A good purchase is one that maximizes utility. It is one of the preeminent concepts of microeconomic theory that consumers – people, companies and governments – endeavor to make spending decisions in a way to maximize their relative satisfaction. They want to get what they pay for. Utility maximization, used to predict myriad consumer decisions, is the core consumption principle behind efficient markets. Inside every buying decision is a cost vs. benefit analysis, formal or intuitive, that balances the cost of the purchase against the benefit, or utility, that will be derived in relative comparison to other possible purchases. This is how governments, Fortune 500 companies, small businesses, and individuals make decisions on what to buy. Turning this concept from an *a priori* purchasing decision to an *ex post* view, every consumer wants to ensure that they receive maximum utility, or benefit, from each purchase.

Cost and Benefit

The desirability of a purchase must consider all aspects of the purchase, positive and negative, expressed in terms of a common unit – money. All benefits and costs have to be measured in terms of their equivalent money value. A purchase may provide intuitive benefits which are not directly expressed in terms of dollars but there is some amount of money the recipients of the benefits would consider just as good as the benefits derived from the purchase.

How does this apply to employee benefits? Well, when a company purchases benefits for their employees they are making a purchasing decision that is not economically different than when they buy raw materials, advertising space or a new machine. In these cases, there is a computed and documented business benefit associated with the cost. With employee benefits, however, there is an idiosyncratic issue that the company bears most of the cost, while the employee receives most of the benefit. Compounding this problem is that fact that the cost is usually unknown to the employee, while the value is usually unknown to the employer. Without cost and utility/benefit transparency, how can the basic principles of utility maximization function?

So, do purchases of employee benefits maximize utility? Unfortunately, in most cases, no they do not. First, a critical measure of the utility of a benefits purchase is how valuable an employee believes that purchase is. Over 15 years of academic research and industry

studies show that employees dramatically underestimate the dollar value of company-sponsored benefits. Most recently, a MetLife survey in 2006 showed that on average employees estimate the cost their employee benefit plans at 55% the true cost, and fully 28% of those surveyed estimated that cost at only 25%. From the point of view of utility maximization, 45 cents of every dollar spent on benefits is wasted. And second, those same employees, divorced as they are from the purchase decision, use their benefits in ways that can drive up the costs year over year with essentially no increase in satisfaction.

The solution is two-fold: complete price transparency and a consumer-centric benefit strategy. Employees' knowing and understanding the full costs of their benefits is the first step toward greater satisfaction. Providing real choice in employee benefits lets the employees themselves make the purchasing decisions in alignment with their own utility maximizing behavior. This would ensure that every dollar spent on benefits would yield the maximum utility.

2. How much insurance do people choose when it is their money?

A typical company offers employees one or two health plans, one dental plan, one life insurance plan, one disability program. This suggests that all employees must have the same insurance requirements. Yet, we would be very surprised if we were told that all employees drive the same car, live in the same neighborhood, choose the same mutual fund, or vacation in the same location. So why do we assume they all want the same type of insurance protection when we know they have widely varied needs? Wouldn't a restricted offering such as is the current practice be economically inefficient and lead to consumer dissatisfaction? Research in the area of consumer demand for health insurance, in fact, shows that the actual purchases consumers make when they control the decision are as varied as their choice in cars, houses and investments.

Most recently, the research arm of the trade group America's Health Insurance Plans produced a study in 2006 of over 3 million individual health insurance policies that demonstrated significant variability of choice in terms of cost, plan type and specific benefits. The variability is particularly interesting because health insurance is a highly regulated industry. Consumers cannot craft their own policy and have it underwritten, and it is neither easy nor fast for an insurer to offer a new health plan. Also, there are significant costs associated with administering numerous, varied health plans strustures. Yet, the variability among health insurance offerings and consumer choices is substantial.

How much *are* consumers willing pay? Even in the highly regulated environment of health insurance, the America's Health Insurance Plans study found that the array of prices (i.e. premiums) for purchased insurance policies was significant. Within the 25^{th} – 75^{th} percentile range, annual prices for single coverage ranged from $1,296

Private Health Insurance

Over 14 million nonelderly people bought private health insurance directly in 2006 (the latest year for which figures are available).

Source: J. Henry Kaiser Foundation, *How Private Health Coverage Works*, April 2008

per year to $4,250 per year, a factor of 3.3x, while family coverage ranged from $2,657 per year to $7,642 per year, a 2.8x factor. For comparison, automobile purchases in the United States vary by only a 2x factor at the 25th – 75th percentile range. The average cost of purchased insurance was $2,613 for an individual policy and $5,799 for a family, which is 42% and 52% ***less*** respectively than the average employer-paid health insurance cost of $4,476 per individual and $12,108 per family. Does this mean that the individual health insurance market is better than the group insurance market? No, in fact actuarially in an "apples-to-apples" comparison, the purchased insurance prices are 10%-25% higher, but this data shows that when consumers have control they routinely choose lower cost options. In sum, there are two critical points. First, the price people are willing to pay for health insurance varies widely. And, second, when consumers are paying they buy less costly plans.

What policies *do* consumers buy? Over 85% of consumers purchase plans that offer both in- and out-of-network coverage, either Preferred Provider Organization (PPO) or Point of Service (POS) plans, while only 6% purchase either Health Maintenance Organization (HMO) or indemnity plans. About 12% of the PPO and POS plans are HSA-eligible. By contrast, over three times as many people (21%) who are covered by insurance offered by their employer are in a network-restricting HMO. This discrepancy seems to be due to the fact that in a group setting HMO plans are typically offered alongside PPO or POS plans and so choosing an HMO plan is the only way an employee can reduce the cost of coverage. On the other hand, the consumer market offers a wide variety of low cost PPO and POS options that can preserve the individual's freedom to choose any physician.

What benefit *designs* do people buy? The three best areas to evaluate are deductible, out-of-pocket maximum, and physician's office copay, because these critical cost-sharing components of a policy define its coverage. In the open market, consumers choose policies ranging

Fact:

The $12,100 annual group plan premium for a family in 2007 significantly eclipsed the gross earnings for a full-time, minimum-wage worker ($10,712) in that year.

Source: National Coalition on Health Care

from no deductible to over $10,000. Within the 25th – 75th percentile range, deductibles span from $500 to $2,500 for an individual and $1,000 to $4,000 for a family, and the average deductible is $1,747 for an individual and $2,753 for a family. By comparison, 75% of all group-purchased plans have individual deductibles less than $500, with an average deductible of $461 for an individual and $1,040 for a family. Out-of-pocket maximums in the open market also have a wide range. Within the 25th – 75th percentile band, these limits range from $2,500 for an individual to $7,500 for a family, while the average out-of-pocket maximum is $4,054 for an individual and $4,410 for a family. It is interesting to note that these averages are closer than any other criteria to the typical group plan, which averages approximately $3,000. Finally, on the open market, the 25th – 75th percentile range for office visit copays vary from $20 to $40, with an average of $28 for a primary care physician and $35 for a specialist. By comparison, the 25th – 75th percentile range for group-purchased plans ranges from only $15 to $20, with an average of $19 for both primary and specialty care.

Overall, we find significant variability among health insurance plans that individual's purchase on the open market across all major benefit design criteria. We also find significant differences in the plans that people purchase compared to plans that companies purchase for their employees. Specifically, group plans have less variability and significantly "richer" coverage than the plans that people voluntarily choose. Interestingly, the difference is less pronounced in the area of out-of-pocket maximum. We believe this is the case because, when it comes to maximum financial exposure, individual needs converge with group-purchased decisions (i.e. richer benefits). So, it is particularly in the area under the out-of-pocket maximum – where the vast majority of people spend their healthcare dollars, under $4,000 per year – that individuals are willing to take significantly more financial responsibility.

In conclusion, by examining essentially a natural experiment, the actual purchases of over 3 million health insurance policies in 2006,

Fact:

Employees' average out-of-pocket costs for deductibles, co-payments for medications, and co-insurance for physician and hospital visits have risen 115% since 2000.

Source: National Coalition on Health Care

it is clear that people purchase a wide range of health insurance policies in the open market to meet their clearly differing needs. On all criteria analyzed, the variability was significant. Interestingly, we found far more variety than in group insurance offerings, and most remarkable, individuals in the open market choose health insurance that is substantially less expensive and assume a correspondingly higher financial risk than the plans employers choose to purchase and offer to their employees.

3. Why CDH plans make sense: the real distribution of healthcare costs

Healthcare costs are a perennial favorite item in the news cycle, and we all have been inundated with data about how expensive healthcare is. According to one of the best sources of information on healthcare costs, the average, non-institutionalized American between the ages of 18 and 65 can expect total healthcare expenses of $3,660 in 2008. With an average that high it seems that those Consumer-Directed Health (CDH) Plans with deductibles typically in the $1,500 to $2,500 range would not do much good.

But let's look at an example using some typical actuarial assumptions to test CDH theory and learn about the real distribution of healthcare expenses. What if there was a health insurance plan that covered 100% of all health costs, like an HMO, but without the copays? With typical insurance pricing, such a plan would cost a single person about $5,000 per year, let's call this Plan A. Now, imagine a Plan B, which had a $2,500 deductible, after which the coverage was 100% with no copays. The premium for such a plan would cost about $2,000 less than Plan A. Choosing Plan B increases an individual's financial risk by $2,500, but costs $2,000 less; therefore people with less than $2,000 in expenses are winners and their maximum win is $2,000 if they have no expenses. Those with more than $2,000 in expenses are losers, and their maximum loss of $500, the amount needed to cover their deductible minus the savings from the lower premium. So, if we accept that the average person has $3,660 in expenses, which is 83% more than $2,000, Plan B would not seem like a good bet for most people…right? It seems most people would be better off in Plan A. Well, that is totally wrong, because we would be committing the most common mistake in statistics – assuming a ***normal*** distribution.

Healthcare expenses are not normally distributed, but rather they are highly ***skewed***. What that means, in English, is that the vast

majority of people, over 75% in fact, have far less than $3,660 in healthcare expenses. It is a few people who have a lot of healthcare expenses that skew the average. The best measure of how much healthcare expenses a **typical** person has is the ***median***, not the mean (or average). The median is the middle number that separates the lower half of the numbers from the upper half. The median healthcare expenses in 2008 are projected to be only $838. So, for this person in the middle, Plan B results in a savings of over $1,100. In fact, about 66% of adults under 65 in America are expected to have less than $2,000 in healthcare expenses in 2008, and so two-thirds of the population will be winners with Plan B.

More specifically, the actual distribution of healthcare expenses by percentile for non-institutionalized Americans between the ages of 18 and 65 in 2008 is:

PERCENTILE	Minimum	10th	20th	30th	40th	Median	60th	70th	80th	90th
ANNUAL HEALTHCARE EXPENSE	0.00	0.00	53.12	229.23	462.34	838.15	1,420.94	2,412.90	4,116.51	7,611.81

This is why CDH plans work so well. Most people have healthcare expenses within the deductible range, and will find that the CDH plan will save them money. More importantly, the scale of the savings is far more significant than the possible risk. In our example, not only are 66% of people better off in Plan B, but they are also better off to a greater degree than the few people who do better in Plan A. To understand this, imagine that there were 10 people whose healthcare expenses distributed exactly at the percentiles above. If they all were in Plan B look at the results:

PERCENTILE	Minimum	10th	20th	30th	40th	Median	60th	70th	80th	90th
ANNUAL EXPENSE	0.00	0.00	53.12	229.23	462.34	838.15	1,420.94	2,412.90	4,116.51	7,611.81
ANNUAL SAVINGS	2,000.00	2,000.00	1,946.88	1,770.77	1,537.66	1,161.85	$579.06	(412.90)	(500.00)	(500.00)

As a group, these 10 people saved $9,583. Moreover, if all of them had taken Plan A, the total cost would have been $50,000, versus only $40,417 for both Plan B and their healthcare expenses. The $9,583 in savings represents a substantial (19%) reduction in total cost. Better still, if the 3 people who should be in Plan A were "smart" enough to correctly choose Plan A, then the total system savings would increase to $10,996, or 22%.

Finally, in our example, we invented some simplified health plans, whereas real plans would yield results that are even more compelling for three reasons. First, virtually all "Plan A's" include cost-sharing in the form of copays and co-insurance. So, someone who has $2,000 of healthcare expenses can easily have $200-$500 of out-of-pocket expenses, even with a traditional HMO/PPO plan like our imagined Plan A. That makes the CDH plan, Plan B, a better choice for more people. Second, today the CDH plans are often priced even lower than our example. It is not uncommon to find the premium difference in the plans to make up almost the entire deductible amount, and therefore almost no one would be better off in the Plan A. Third, common sense suggests and industry studies have proven that people in CDH plans are better consumers of healthcare and spend less money than they would have in traditional plans.

Fact:

One half of workers in the low and mid range-compensation jobs either had problems with medical bills in a 12-month period or were paying off accrued debt.

Source: National Coalition on Health Care

4. People in CDH plans

The conventional wisdom about Consumer Driven Health (CDH) Plans says that :

1. They only make sense for young people or rich people
2. Because of a high deductible, people will avoid preventive care
3. Because of a high deductible, people will not get the healthcare they need
4. Consumerism will not work because people just cannot be good consumers of healthcare

Well, like a lot of "conventional wisdom", especially when it is espoused by vested interests, these statements are really myths.

Myth 1: CDH plans are for the young and healthy.

Truth: Studies are unanimous in their finding that people who purchase or enroll in CDH plans are demographically similar to people who purchase or enroll in other health plans. Contrary to concerns that CDH plans and their associated Health Savings Accounts (HSAs) would appeal only to the young, rich and healthy, a study by the consortium America's Health Insurance Plans found that most of HSA account holders among its members were over 40 years old, 73% of them had children, and 29% had family incomes below $50,000.

Myth 2: Because of a high deductible, people will avoid preventive care.

Truth: The opposite is true. CDH plan enrollees are more likely to have annual physicals, participate in wellness programs and meet preventive care guidelines. A CIGNA study of over 400,000 CDH members found that preventive care visits per 1,000 members for first year CDH participants was 12% higher than traditional plans, and increased to 14% for second year members. A study by McKinsey & Company demonstrated that people in CDH plans were 25% more likely to follow healthy behavior guidelines, 20% more likely to participate in company-

sponsored wellness programs and 30% more likely to have annual physicals. When queried about the reasons behind their actions, CDH members routinely said that preventive medicine would save them money in the long run.

Myth 3: Because of a high deductible, people will not get the healthcare they need.

Truth: No study supports this claim and most studies conclude the opposite is true. The CIGNA study evaluated 300 evidence-based measures of healthcare and concluded that the CDH members continued to receive recommended care at the same or higher levels than they had when they were covered in traditional plans in the previous year. Moreover, the study found that in the area of prescription drugs, medication compliance for chronic conditions improved. Similarly, a Humana study of over 100,000 CDH plan members found that compliance rates for prescriptions were 23% higher among CDH participants than people in traditional plans. Finally, the McKinsey study determined that CDH members were 20% more likely to report that they follow overall treatment regimens for chronic conditions very carefully.

Myth 4: Consumerism will not work because people just cannot be good consumers of healthcare.

Truth: Not only is there direct evidence that people in CDH plans become active consumers, but their consumerism results in dramatic reductions in overall healthcare cost. The McKinsey study found that CDH members were 50% more likely to inquire about cost, 33% more likely to identify treatment alternatives, and ***3 times*** more likely to have chosen a less expensive, less extensive treatment during the last 12 months. The Humana study showed that hospital admissions went down, although cost per admissions increased slightly, indicating that

consumers are not foregoing high cost non-discretionary spending. The number of office visit occurrences was similar between CDH and non-CDH members, but the cost per visit was over 10% less, suggesting that consumers are spending their money more wisely and being more cost-conscious. Numerous studies have demonstrated a significant reduction in emergency room visits. Most importantly, every study concluded that the greater consumer sensitivity of the CDH member resulted in a significant reduction in healthcare expenses. In the CIGNA study CDH members' medical costs were more than 12% lower relative to the costs for HMO and PPO members, and CDH healthcare trend (inflation) was less than half the trend of traditional plans. Debunking the concern that CDH plans have lower trend because they are attracting only healthier people, the CIGNA study showed that employers who moved all employees into CDH plans had the lowest annual trend, of only 1.6%. The Humana study demonstrated that CDH members had 5.6% annual trend, versus 14.1% for similar members in traditional plans. In a 3-year study, the longest such study to date, United Healthcare, with the largest number of CDH members in the country, showed that after adjusting for demographics, health status and geography, the cost trend for CDH plans was a 3%-5% ***decrease*** versus an 8% to 10% increase in the PPO plans.