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# Lessons From the Evolution of 401(k) Retirement Plans for Increased Consumerism in Health Care: An Application of Behavioral Research

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- ***Retirement and health benefits following a similar evolution:*** The private sector's shift away from "traditional" company-financed pension plans toward individual 401(k) accounts illustrates how benefit decision-making and responsibility have shifted *from* the employer *to* the worker. The current trend in health care design toward "consumer-driven" health plans illustrates the same trend with health benefits.
- ***Health plan design is encountering the same obstacles as 401(k)s did:*** Efforts to make workers more involved and responsible for their health benefits have run into the same problems that 401(k) plans did: Workers tend to delay or be disengaged from both retirement and health care decisions, these issues require long-term planning, and workers see both retirement and health care decisions as complex and difficult.
- ***Worker behavior is driving retirement plan design:*** Enactment of the Pension Protection Act of 2006, which encouraged the use "default" 401(k) enrollment and investment decisions and simplified choices, represents the strongest federal endorsement of retirement plan design based on worker behaviors.
- ***Behavioral research can help employers design health benefits:*** This report looks specifically at lessons learned in the retirement realm with respect to offering workers choice, financial incentives, and more information and education. This is compared with the early evolution of consumer-driven health plans, which are still being driven solely by the market and not by legislation.
- ***Among the behavioral lessons learned from retirement plans:***
  - ***More choice is not always better:*** Behavioral research, particularly with 401(k) retirement plans, has shown that increased choice can have negative consequences: More is not always better and may even be worse in some cases. Many people remain disengaged from matters they do not have an immediate need to address, and by the time the need becomes immediate, it is often too late. Many, if not most, workers are probably not capable of making the most appropriate retirement planning or health care choices—it is simply too difficult.
  - ***Education and information are not enough:*** Research has shown that education has resulted in little to no improvement in workers' knowledge of retirement saving and investing. In addition, empirical evidence suggests that even when "educated" employees know, most of them fail to act on their knowledge. The heavy investment that many employers have made in retirement education and information programs often fails to produce the desired results.
  - ***Financial incentives don't always work:*** Financial incentives, such as an employer match in a 401(k) plan and tax breaks, also fall short of motivating optimal behaviors. Despite the tax-favored status of contributions and the existence of employer matching contributions, a significant portion of eligible workers still do not contribute to a 401(k) plan.
- ***Careful plan design more likely to succeed:*** Employers can effectively overcome many of these challenges with effective retirement and health plan design. Research has shown how default choices, simplification, framing, and requiring active decisions in 401(k) plans can go a long way toward improving the decisions that workers make. Similar design factors can be applied to employment-based health plans, and plan sponsors are well advised to determine these potential effects ahead of time.

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## Introduction

Employment-based health and retirement programs have followed a common pattern for well over a century, as large private-sector employers and all public-sector employers were mostly paternalistic in the provision of these benefits. This was most true in employment-based defined benefit (DB) retirement pension plans and employment-based health benefits.

The traditional private-sector DB pension plan received all or most of its contributions from the employer, and benefits were only paid at retirement as a lifetime income of monthly payments. The traditional public-sector DB plan included worker contributions and annuity-only distributions. After the passage of the Employee Retirement Income Security Act of 1974 (ERISA), private-sector DB plans began to change.[1] The introduction of lump-sum distributions on job change and retirement in the 1970s, followed by new individual account designs in the 1980s, were perhaps the most significant changes. Employers continued to make contributions and control investments in DB plans, but individuals who opted to receive a lump-sum distribution took on responsibility for managing that money and making it last a lifetime—which was the former role of traditional DB pension plans that annuitized payments over the course of workers' retirement years.

Traditional employment-based health benefits were typically "indemnity" plans in which employers paid most, or all, of the premium, and health care services were covered with low or modest deductibles. The RAND Health Insurance Experiment found that the introduction of higher cost sharing could reduce the use of health care services and cause the individual to pay more attention to various health care decisions. Around the same time, Congress enacted the Health Maintenance Organization (HMO) Act of 1973. The combination of these two changes, along with growing national concerns about rising health care costs, marked the beginning of a period of substantial change in employment-based health benefits design.

Employer paternalism extended to defined contribution (DC) retirement plans, most frequently profit-sharing and money purchase pension plans, in which all workers were included in the plan, and employers made all of the contributions to the plan and generally made most of the decisions about how plan assets would be invested. Where investment options were offered to workers, the choices were generally limited to three or four mutual funds, and the opportunity to move from one option to another was possible only on a quarterly or annual basis. Many employers also sponsored thrift-savings plans primarily aimed at capital accumulation. Often, workers choosing to contribute received a matching contribution, and generally, they could withdraw their savings after two or three years.

The Revenue Act of 1978 included two provisions that history will mark as the turning point away from traditional private-sector employer paternalism in retirement and health benefits. The first was Sec. 125 of the Internal Revenue Code, which provided for worker choice in the allocation of both employer and worker dollars across benefit programs. This led to the development of "cafeteria" benefit plans and flexible spending accounts, or FSAs (EBRI, 1997; and Foley, 1993). Today, consumer-driven health benefits, health savings accounts, and health reimbursement arrangements can all be viewed as an extension of this movement and as the continued evolution of the relative roles of employers and workers (EBRI, 1982).

The second turning point was Sec. 401(k), which provided, in combination with Sec. 125 as interpreted by the Treasury Department, for the creation of today's 401(k) plan.[2] When ERISA was enacted in 1974 there were two DC plans for every DB plan.[3] Most of those DC plans were profit-sharing plans which still exist, but now with a 401(k) feature that allows for pre-tax salary-deferral contributions. Until around 1984, the investment structure of these plans did not significantly change.

However, when mutual fund companies entered the market, they offered a retirement plan design with multiple mutual fund investment options and daily account valuation, which enabled participants to make daily investment changes. In addition, mutual fund companies began marketing the plans without the employer profit-sharing contribution. Instead, new plans required the worker to make the contribution decision, and then the employer might make a matching contribution. Today, all but 12 percent of 401(k)

plan participants are eligible for an employer matching contribution, and there are more than 13 DC plans for every DB plan (U.S. Department of Labor, Employee Benefits Security Administration, 2008).

Since the Revenue Act of 1978 changed the world of private-sector employment-based health and retirement programs, employers have continued to experiment and Congress has continued to legislate. The nation's largest private-sector employers and the federal government began the movement away from total reliance on DB retirement plans in the mid-1980s.[4] As the largest employers have increased the importance of DC plans to workers' ability to afford retirement, they have also become more concerned about worker participation, account balances, and investment decisions.

The continuingly rising cost of employment-based health benefits has caused many employers to continue to search for new ways to control these expenses. The most recent efforts have focused on consumer-driven health plans (CDHPs) as a way to help control total health care spending through increased consumer engagement. First introduced in 2001, CDHPs feature a high-deductible plan that is often combined with funding accounts to help participants pay out-of-pocket medical costs. The accounts may be notional, meaning that they are only "funded" by the employer when an eligible expense is incurred, as is the case with health reimbursement arrangements (HRAs). They may also be health savings accounts (HSAs), funded entirely by the worker, the employer, or both, with account balances that are "owned" by the individual. While the primary rationale for these plans is employer cost containment through increased cost sharing with workers, their ultimate success is dependent on workers making better health care decisions. An underlying assumption is that workers will be more focused on getting information and making the best decisions when they are financially motivated to do so. In the past, health plans have often failed to provide extensive information and decision-support tools or specially designed financial incentives tied to health care decisions in order to help plan participants manage their own health.

Early versions of defined contribution plans (which were mostly profit-sharing and thrift savings plans) included employer matching contributions but few investment options and little financial education. This changed as the Department of Labor issued regulations (under Sec. 404(c) of ERISA) setting forth requirements for employers to be able to shield themselves from liability for worker decisions. These requirements included offering multiple investment options as well as specific information and education. Also, rules under the tax code required a certain level of participation and contribution by lower-paid workers in order for highly paid workers to take full advantage of the plan. Many employers desired higher rates of worker participation and contribution and greater asset diversification than they were able to achieve with education efforts and the financial incentive of the matching contribution alone.

Employers sought to find ways to change these patterns. Empirical research about how people make decisions, both generally and with respect to their company-sponsored retirement benefits, contributed to a better understanding of participant behavior. Studies in consumer behavior and psychology were drawn upon, as was the work of behavioral economics—the study of the irrational and predictable ways that people make financial decisions.

For example, in questioning the benefits of ever-more investment options offered in company-sponsored retirement plans, plan sponsors looked to the well-known work by Iyengar and Lepper (2000); this work found that while shoppers were more likely to stop at a booth displaying 24 kinds of jams and jellies (60 percent versus 40 percent), they were 10 times *less likely* to actually buy any of them, as compared with shoppers who stopped at a booth with only six different jams and jellies. At some point, more choices lead to less action. Behaviorists studied prescriptive solutions, such as automatic retirement plan design features, finding that 401(k) plan participation rates began to climb when workers were automatically enrolled in plans and were required to "opt-out" instead of having to actively decide to enroll. Default investment into diversified retirement funds and managed account services assured at least initial asset diversification. The Pension Protection Act of 2006 (PPA) further encouraged these automatic plan design features, giving plan sponsors yet another reason to adopt them.

In sum, defined contribution retirement plans have evolved from the employer making all decisions to workers making most decisions through their own initiative. Now the new approach focuses on carefully considered default selections that reflect the decisions employers would have made on the behalf of workers, but allowing workers to override the defaults with their own actively decided choices.

Health plan design is following a similar path as the focus on consumerism grows. Certainly, significant differences exist between preparing for retirement and making good health care decisions. However, there are at least three important similarities:

- First, in many cases, there is no (perceived) immediate need to start saving for retirement, to select health care coverage, or to seek medical treatment, although employers are trying very hard to engage workers in these decisions. Generally, except in the case of medical emergencies, all of these things can easily be put off.
- Second, both retirement planning and good health-related decisions involve costs today for uncertain benefits in the (often) distant future. While the negative implications of suboptimal health care decisions may present themselves sooner rather than later, for many individuals, the future benefits of health care insurance as well as healthy behaviors are even more uncertain than the expected value of one's retirement assets.
- Third, decisions in both domains are considered complex for most people, and the choices are numerous.

This *Issue Brief* considers the lessons learned in the evolution of 401(k) plan design, where the objectives are a high level of participation, a high level of worker contribution, a diversified approach to investing, sufficient asset accumulation to enable retirement, and not outliving one's assets. The analysis looks specifically at lessons learned with respect to offering workers choice, financial incentives, and more information and education. This is compared with the early evolution in CDHPs, where the evolution is still being driven solely by the market and not by legislation or recent empirical behavioral research (the RAND empirical health behavioral research experiments of the late 1960s are still used as the touchstone today). Finally, lessons are offered about how benefit-plan design can help to optimize workers' decisions. A thoughtful analysis of this topic provides sponsors of employment-based 401(k) plans and CDHPs an opportunity to consider how these lessons may be applied to the design of these plans *now*.

No judgments are made about the appropriateness of CDHPs or 401(k) plans. Nor does the discussion address many of the important issues in health care, including *who* should make the decisions related to rationing health care—the Goliath issue that few are willing to address. This report attempts to offer innovative thoughts, based on what is known about human behavior, for incremental improvement in benefit programs designed to balance the needs of employers and their workers, with an eye toward cost control and worker well-being.

## *Lessons Learned About Choice*

Within the realm of *retirement* plans, workers make choices (whether actively or passively) about how much to save, which investments to pick, and when and how to manage their retirement assets throughout their careers. Within the realm of *health* plans, workers make choices about the plan, the level of deductible and co-payments, whether or not to contribute to an FSA or HSA, what health care services to use, and when. After decades of research and observation of workers' retirement-saving and investing choices, plan sponsors and service providers have learned a number of lessons about how these decisions are made. Some of these lessons about choice are discussed below, and implications for increased consumerism in health care are also briefly mentioned.

### Lesson 1: More Choice Can Lead to Poorer Decisions and Lower Satisfaction

From 1998 to year-end 2006, the average number of investment options in 401(k) plans nearly doubled—increasing from 10 to 18[5] as funds were added in response to requests from workers and as service providers introduced new products. And, as a result of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA), the range of potential pre-tax contribution rates available to most participants more than doubled.[6]

# Health Savings Accounts

A health savings account (HSA) is a tax-exempt trust or custodial account that an individual can use to pay for health care expenses. Contributions to the account are deductible from taxable income, even for individuals who do not itemize their taxes, and tax-free distributions for qualified medical expenses are not counted in taxable income. The maximum annual contribution is $2,900 for self-only coverage and $5,800 for family coverage in 2008. Earnings on contributions are also not subject to income taxes. Tax-free distributions are also allowed for certain premiums.

HSAs are owned by the individual with the high-deductible health plan and are completely portable. There is no use-it-or-lose-it rule associated with HSAs, as any money left in the account at the end of the year automatically rolls over and is available in the following year.

In order for an individual to qualify for tax-free contributions to an HSA, the individual must be covered by a health plan that has an annual deductible of not less than $1,100 for self-only coverage and $2,200 for family coverage. Certain preventive services can be covered in full and are not subject to the deductible. The out-of-pocket maximum may not exceed $5,800 for self-only coverage and $11,000 for family coverage, with the deductible counting toward this limit. The minimum allowable deductible and maximum out-of-pocket limit will be indexed to inflation in the future. Network plans may impose higher deductibles and out-of-pocket limits for out-of-network services. An individual can have a health plan with a deductible and maximum out-of-pocket limit that qualifies him or her to make a tax-free contribution to an HSA, but the individual is not required to make a contribution or open an account.

Both individuals and employers are allowed to contribute to an HSA. Contributions are excluded from taxable income if made by the employer and deductible from adjusted gross income if made by the individual.

To be eligible for an HSA, individuals may not be enrolled in other health coverage, such as a spouse's plan, unless that plan is also a high deductible health plan. However, individuals are allowed to have supplemental coverage without a high-deductible for such things as vision care, dental care, specific diseases, and insurance that pays a fixed amount per day (or other period) for hospitalization.[7] Individuals enrolled in Medicare are not eligible to make HSA contributions, although they are able to withdraw money from the HSA for qualified medical expenses and certain premiums.[8] Individuals also may not make an HSA contribution if claimed as a dependent on another person's tax return.

Individuals who have reached age 55 and are not yet enrolled in Medicare may make catch-up contributions. In 2004, a $500 catch-up contribution was allowed. A $1,000 catch-up contribution will be phased-in by 2009.[9]

Distributions from an HSA can be made at any time. An individual need not be covered by a high-deductible health plan to withdraw money from an HSA (although he or she must have been covered by a high-deductible health plan at the time the funds were placed in the HSA). Distributions are excluded from taxable income if they are used to pay for qualified medical expenses as defined under Internal Revenue Code (IRC) Sec. 213(d). Distributions for premiums for COBRA,[10] long-term care insurance, health insurance while receiving unemployment compensation, and insurance while eligible for Medicare other than for Medigap, are also tax-free. This means that distributions used to pay Medicare Part A or B, MedicareAdvantage plan premiums, and the worker share of the premium for employment-based retiree health benefits are allowed on a tax-free basis.

Distributions for nonqualified medical expenses are subject to regular income tax as well as a 10 percent penalty, which is waived if the owner of the HSA dies, becomes disabled, or is eligible for Medicare.

Individuals are able to roll over funds from one HSA into another HSA without subjecting the distribution to income and penalty taxes as long as the rollover does not exceed 60 days. Rollover contributions from Archer Medical Savings Accounts (the predecessor to HSAs) are also permitted.

## Health Reimbursement Arrangements

A health reimbursement arrangement (HRA) is an employer-funded health plan that reimburses workers for qualified medical expenses. HRAs are typically combined with a high-deductible health plan, though this is not required. HRAs can also be offered on a stand-alone basis or with comprehensive insurance that does not use a high deductible. Workers are eligible for an HRA only when their employer offers such a health plan.

Employers have a tremendous amount of flexibility in designing health plans that incorporate an HRA. For example, the amount of money that is placed in the account, the level of the deductible, and the comprehensiveness of the health insurance can all vary. Employers often cover certain preventive services in full, not subjecting them to the deductible. Employers can offer comprehensive health insurance that covers 100 percent of health care costs after the deductible has been met, or they may offer coverage with cost sharing after the deductible is met. If employers choose to pay less than 100 percent of health care expenses after the deductible has been met, they then have the option of designing the plan with or without a maximum out-of-pocket limit.

There is no statutory requirement that a worker has to have a high-deductible health plan in order to also have an HRA. However, it is standard practice among employers that a worker must also choose a high-deductible health plan in order to have an HRA.

HRAs are typically set up as notional arrangements and exist only on paper. Workers behave as if money was actually funding an account, but employers do not incur expenses associated with the arrangement until a worker files a claim. By contrast, were employers to set up the HRA on a funded basis, they would incur the full expense at the time of the contribution, even if a worker had not filed any expenses.

HRAs can be thought of as providing "first-dollar" coverage until funds in the account are exhausted. Leftover funds at the end of each year can be carried over to the following year (at the employer's discretion), allowing workers to accumulate funds over time, and, in principle, creating the key incentive for individuals to make health care purchases responsibly. Employers can place restrictions on the amount that can be carried over.

Distributions from an HRA for qualified medical expenses are made on a tax-favored basis. Employers can also let workers use an HRA to purchase health insurance directly from an insurer. Since unused funds are allowed to roll over, workers are able to accumulate funds over time. Employers can allow former workers to use any leftover money in the HRA to continue to cover qualified medical expenses. Funds can be used for out-of-pocket expenses and premiums for insurance, long-term care, COBRA, and retiree health benefits. Employers are not required to make unused balances available to workers when they leave.

From a purely rational standpoint, more choice is generally good. However, when the effect of having more investment option choices in retirement plans was studied, the results showed that the *greater* the number of investment options offered, the *lower* the likelihood of plan participation and the *higher* the likelihood of investing all or most of one's assets in the most conservative option(s) available. For example, in one study, for every 10 funds added to a retirement plan, the probability of individual participation dropped by 2 percent, the allocation to money-market and bond funds increased by 3 percentage points, and the likelihood that workers did not allocate any money to equities increased by nearly 3 percentage points (Iyengar, Jiang, and Huberman, 2004, and Iyengar and Kamenica, 2006).[11] More choice may lead to less retirement plan participation because when people are presented with several options that are difficult to evaluate, they tend to disengage from the decision. When they do make a choice, it has been found that people "[choose] almost arbitrarily to complete the process" (Schwartz et al., 2002). It is likely that plan sponsors failed to recognize any of these irrational—but very real—effects of increased choice.

Surprisingly, more choice can also lead to lower satisfaction levels among participants and to more regret (Iyengar and Lepper, 2000). Don't the fries always taste better when they just show up on our plate, rather than when we've guiltily chosen them from a menu that includes healthier choices? In some cases, trying to

choose the best alternative has been positively correlated with a greater sense of regret, thwarted perfectionism, and depression. People who consistently try to choose the very best (called "maximizers" by researchers) have been found to be less happy, to be less satisfied with life, to be more pessimistic, and to have lower self-esteem. They also tend to be less satisfied with their choices (Schwartz et al., 2002).

Even with traditional health care coverage, workers have *always* faced a multitude of choices and decisions. But increased focus on consumerism suggests that workers will have even more decision making (and a greater number of available choice alternatives) as they become more engaged and search for ways to stretch their health care dollars. For example, a goal of consumerism is that, rather than relying solely on a doctor's single recommendation, workers would become more involved in their care and inquire about other, alternative treatment options, presumably with different costs. This opportunity has always existed, but the higher level of cost sharing in CDHPs that motivates workers to take advantage of it has not. Essentially, in many cases, service providers—often physicians—have narrowed the choice sets for patients, offering them the single alternative they perceive as optimal. Increased consumerism in health care, if successful, will engage workers to explore other options as well, and as a result, a greater number of treatment options will become more salient to them. This assumes that medical and health-related decision making is basically the same as any consumption-related decision. Even the "choice" of visiting the doctor is more salient under consumerism, where increased cost sharing highlights the consequences of seeking services in a new way, particularly when the deductible has not been met.

Given the relatively recent introduction of CDHPs, empirical evidence is limited about how increased health care choice (or, more precisely, the increased *salience* of choice, since these choices have been previously available) is actually affecting worker decision making. However, there is some early evidence that, while workers are attracted to more choices, the additional choices may lead to worse decisions. In a current study by Vanderbilt economist Mike Shor,[12] preliminary results show that when people are given additional drug coverage options, they make worse decisions. Most people pick the plan with the longest list of items covered, without regard to coverage and cost of the most relevant drugs.

Thus, there is early but limited evidence similar to what is seen in the retirement plan domain: that a larger choice set is appealing but may lead to poorer decisions. The relevant questions are: How much choice is too much, and how can choice sets be presented to reduce the likelihood of negative implications? More research is necessary to fully explore these questions in the health care domain to understand the implications of more health care choices.

While an easy "fix" for too much choice may seem possible (simply by reducing the number of them), in reality, it is very difficult to revert to a more limited choice set since workers perceive the limitation as a loss. Indeed, despite the evidence that more investment choice leads to suboptimal decisions, very few plan sponsors have been comfortable removing previously offered investment options unless there is another reason (such as poor performance) to do so.

## Lesson 2: Expectations About Workers' Abilities to Make Good Decisions About Complex Matters Must Be Realistic

Even if all of the other behavioral tendencies that cause suboptimal choices could somehow be removed, many, if not most, workers are probably not *capable* of making the most appropriate retirement planning or health care choices. It is simply too difficult.

To optimally prepare for financial security at retirement requires in-depth knowledge of a number of issues, including expenses in retirement, life expectancy, taxation, and capital-market expectations. It is no wonder that only 43 percent of people have ever performed a retirement-needs calculation (Helman, VanDerhei, and Copeland, 2007).[13] And that's just the beginning; the amount needed at retirement must be translated into an appropriate current savings rate and an optimal investment portfolio that lies on the plan's "efficient frontier," showing the best possible return against lowest possible risk. As difficult as all of this may be, in the 401(k) plan design of yesterday, workers were essentially left to make these decisions on their own, despite evidence that they lacked the skills and knowledge necessary to assume this responsibility. Consider the following, based on responses from John Hancock's 1992 and 1995 surveys of 401(k) participants (John Hancock, 2002):

- Forty-eight percent of retirement plan participants thought that money market funds include stocks. [In fact, they do not.]
- Of the people who knew that money market funds included short-term securities, only 11 percent of them knew that this type of fund invested only in money market securities.
- Using a scale of 1 to 5, where 5 represents very high risk, participants responded that company stock is less risky (3) than a diversified stock fund (3.2). [In fact, company stock is more risky.]

As noted later in this *Issue Brief,* elaborate worker communication and education programs have not improved workers' investment knowledge as much as they were expected to either (based on results from John Hancock's latest survey).

Evidence suggests that at least some workers are no more knowledgeable when it comes to health care. The 2003 National Assessment of Adult Literacy classifies adults into four proficiency categories (proficient, intermediate, basic, and below basic). When it came to health literacy, 14 percent of all adults were categorized as "below basic," suggesting that more than 1 in 10 adults lack the most basic skills necessary to manage their health. While a lower percentage (7 percent) of adults with employment-based health benefits was "below basic," still only 14 percent of adults with employment-based health benefits performed at a "proficient" level.[14] Figure 1 provides more information on how the difficulty of selected health literacy tasks maps to the four proficiency levels. Note that calculating a worker's share of health insurance costs for a year—a basic and critical part of evaluating one's health care coverage—is considered to be one of the most difficult tasks.

Additionally, according to a 2007 Watson Wyatt Employee Survey, one-third or fewer workers feel they can explain the following terms:

- Out-of-pocket.
- Lifetime maximum.
- Health savings account.
- Coinsurance.

Finally, Fronstin and Collins (2008) report that individuals with CDHPs are less likely than those covered by comprehensive plans to say their health plan is easy to understand, and that confusion about high-deductible plans may even be increasing. A plan design and structure that relies more on individual decision-making and responsibility, but that is communicated in a way that is more confusing to those individuals, suggests a problem.

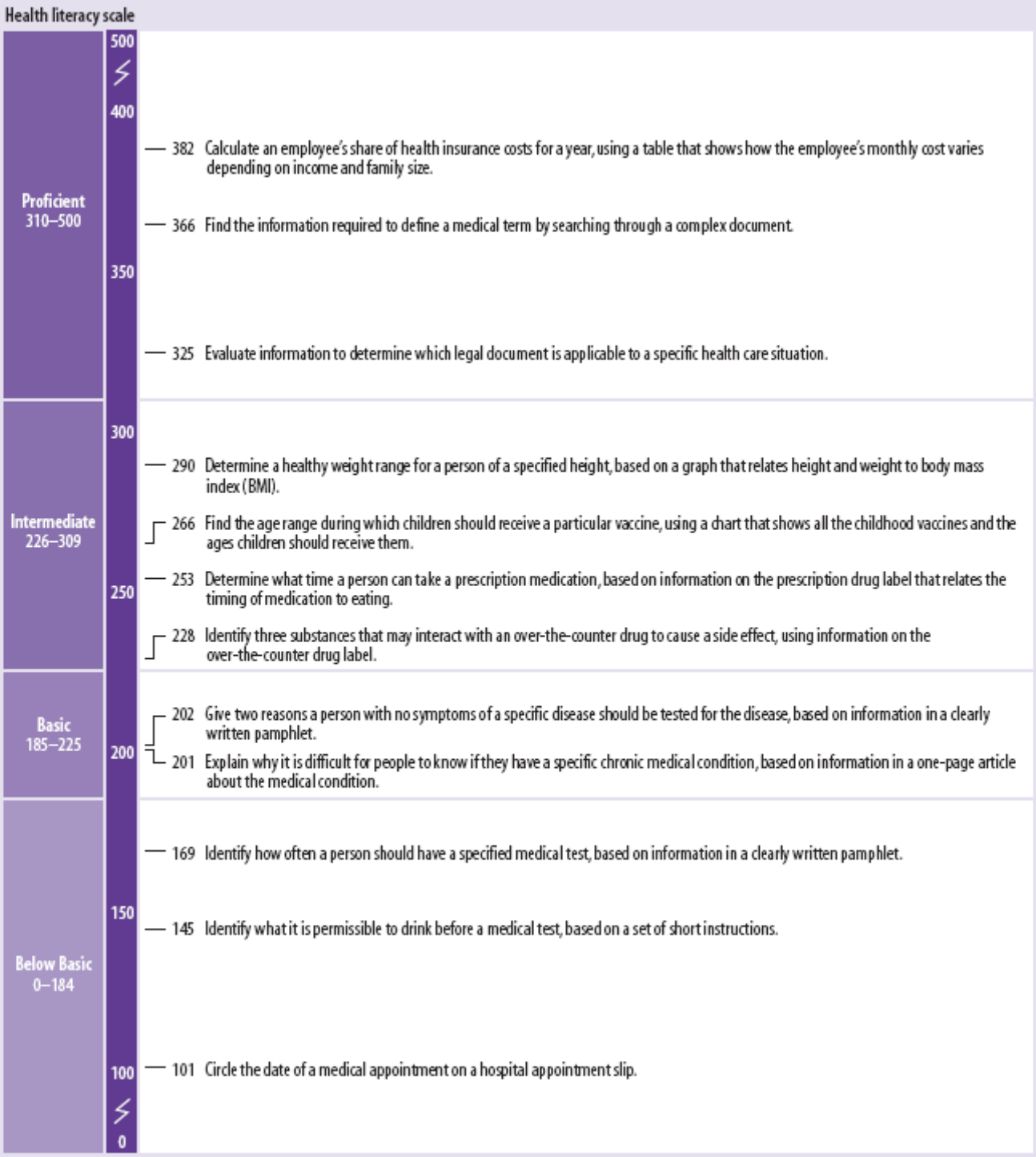
The complexities of adequately preparing for retirement pale in comparison to those associated with choosing health care plans, providers, and treatments. In addition to being more complex than retirement planning decisions, health-related decisions have much greater consequences—in some cases, life or death consequences. The complexity is driven not only by the range of possible outcomes and their associated probabilities (imagine a decision tree beginning with the selection of a health care plan and ending with possible causes of death, with all decision points, including choices and outcomes, along the way), but also by the complex and technical nature of health care practices. There is strong evidence that workers simply lack the ability to successfully navigate these complexities. And in the case of medical emergencies, time often prohibits careful consideration of complex alternatives.

## Lesson 3: Optimism and Overconfidence Impact Choices

Human beings have a general tendency to be overly optimistic and confident. These tendencies are manifested in retirement planning behaviors by workers' investing in hot-performing funds and by their self-predicted retirement security, despite modest saving and little or no preparation.[15]

In the health care domain, the continuous flood of new medical discoveries and technologies offer people new hope and, in some cases, possibilities where none existed before. Hope, coupled with the tremendous risk and uncertainty of medical decisions, can easily lead to excessive optimism and overconfidence. The implications of the overconfidence and excessive optimism are that:

Figure 1
**Difficulty of Selected Health Literacy Tasks: 2003**




NOTE: The position of a question on the scale represents the average scale score attained by adults who had a 67 percent probability of successfully answering the question. Only selected questions are presented. Scale score ranges for performance levels are referenced on the figure.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

- Workers may seek highly expensive care even when the probability of a positive outcome is low.
- Optimism may cause some workers to make choices that have lower short-term costs (such as high-deductible plans without savings accounts) because they do not anticipate their own long-term future health needs or problems.

## Lesson 4: Workers Will Find a Way to Simplify Complex Decisions, Often by Choosing the Lowest-Cost Alternative

When faced with making decisions about complex matters, individuals often resort to oversimplifying the decision by reducing it to only one important factor and disregarding other important matters (Tversky, Sattath, and Slovic, 1988).[16] One of the easiest things for most people to understand is short-term cost, whether it be out-of-pocket cost or effort required. Loss aversion and poor self-control are behavioral tendencies that also drive decision makers toward alternatives with the lowest short-term costs. This section describes these behavioral concepts and discusses how they affect retirement plan and health care decision making.

In general, people are loss averse, meaning they are much more sensitive to losses than to gains, and a potential gain must be at least 2–2.5 times the potential loss for a bet to be appealing (Kahneman, Knetsch, and Thaler, 1990, and Tversky and Kahneman, 1992). To some extent, the future benefits (the gain) of today's health care costs (the loss) are unknown, both generally and specifically, when one is trying to compare coverage and care alternatives. As such, loss aversion may have a powerful influence on health care choices.

Related to loss aversion, poor self-control presents another barrier to optimal decision making. People often want to make the "right" decision, but if that decision comes at a cost to today's satisfaction or enjoyment, they prefer to delay the decision.[17] This concept helps explain why, when people are choosing *today* between chocolate and fruit as a snack to consume *a week from today*, 74 percent choose fruit, but when they are choosing a snack for today, 70 percent choose chocolate (Read and van Leeuwen, 1998).

Within the context of saving for retirement, loss aversion and self-control issues help explain:

- Why people have trouble saving for retirement, even when they say they want to.
- Why some people avoid the volatility of equity investments, even though they make sense for most long-term retirement portfolios.
- Why some people end up selling low after suffering a decline in their portfolio value.
- Why people take cashouts from their retirement plans prior to retirement.

Loss aversion is one of the foundations of consumer-driven health care. CDHPs were developed based on the notion that people are loss averse and will be less likely to incur unnecessary health care expenses if they suffer a loss (out-of-pocket cost) in doing so. As workers have to pay more for health care (incur a loss), they are more likely to carefully consider those spending decisions. Evidence suggests the concept is holding true in various aspects of health care decision making.

According to the most recent EBRI/Commonwealth Fund Consumerism in Health Care Survey, 52 percent of CDHP-covered individuals reported that their insurance cost was less than the cost of the other available options (Fronstin and Collins, 2008). It is reasonable to assume that at least some of these individuals selected the lowest-cost plan because of their aversion to the higher premium costs of the other plans. Similarly, a relatively high percentage of enrollees in high-deductible plans (42 percent) had not funded an HSA although they were eligible to do so and in spite of the tax-advantaged nature of HSA contributions (Fronstin and Collins, 2008).

The RAND Corp.'s Health Insurance Experiment clearly demonstrated the efficacy of cost sharing in influencing health care-related behaviors. When covered individuals are required to pay more for health care services, their usage of these services declines (Brook et al., 2006).[18] Without an immediate and serious perceived need, delaying the effort and cost of seeking care is to be expected, given the human tendency to avoid costs today, even though that avoidance may result in increased future costs, which has occurred in some cases. Indeed, Fronstin and Collins (2008) find that adults in CDHPs were significantly more likely than those with comprehensive coverage to say they had avoided, skipped, or delayed health care treatment

because of costs. The problems were more pronounced among people with health problems and lower incomes.

In a number of studies, researchers have noted the negative effects of increased cost sharing on patients' compliance with prescribed drugs. They have found that, while increased cost sharing is effective in reducing drug costs, it can also result in higher spending for other medical services, such as emergency-room visits and non-elective hospitalizations, as a result of decreased medication compliance.[19] In other words, higher cost sharing can and does reduce health care spending, but in some cases, it reduces *beneficial* health care spending on prescribed medications and preventive services. A number of CDHP designers have recognized these suboptimal behavioral effects, and have begun to explore ways to counteract them. For example, CDHPs have excluded the cost of preventive services from plan deductibles, adjusted copayment amounts by the value of the services, as opposed to just the costs, and rewarded good health behaviors.[20]

Empirical research about trade-offs between delayed gratification and future health benefits has resulted in a number of reports on the topic as well. As with money, there tends to be a steep discount rate on delayed health outcomes, meaning that people tend to significantly undervalue future benefits (van der Pol and Cairns, 2002). Specifically, as the delay of the future health benefit becomes longer, people will be less likely to exhibit preventive health care behaviors because the future benefit becomes increasingly discounted, or worth less, while the present cost of the preventive behaviors remains the same. However, since discounting is hyperbolic, the discount rate of the future benefit decreases as its delay increases. In other words, a delay in benefit from the present time to one year has a higher discount rate relative to a delay from one year to two years. Phrased another way, people generally prefer immediate payoffs, even if they are smaller, to larger payoffs that are in the distant future.

Interestingly, there is a direct link in discount rates for money and health: people with higher monetary discount rates have also been shown to be the most likely to discount the future health benefits of preventive behaviors. For example, smokers have a much higher monetary discount rate relative to nonsmokers (Bickel, Odum, and Madden, 1999). This could be a dangerous combination if, ultimately, the people who choose coverage with the lowest short-term cost (typically a high-deductible plan unless someone is already ill) do not save and have a tendency toward poor health behaviors.

It is important to note that heavy discounting of future health benefits is most prevalent in health behaviors when prevention involves visceral or emotional elements ("hot" states, such as hunger), but less likely when visceral or emotional elements are not involved ("cold" states, such as satiation) (Loewenstein, 2005; see also Chapman, 2005). As such, similar to retirement programs such as SMarT, where people commit a portion of future raises to their 401(k) plans (in order to prevent a present "hot" state decision to forgo saving for spending), researchers have proposed delaying "hot" decisions in the health domain to increase healthy behaviors. For example, it has been found that delaying the time between when a food order is made and its delivery increased the percentage of healthy food orders, such as vegetables, and decreased the percentage of unhealthy orders, such as ice cream (Milkman, Rogers, and Bazerman, 2007).

## *Lessons Learned About Incentives and Information*

### Lesson 5: Worker Preferences Are Not Well Defined

If people were rational, their preferences would be relatively stable at any point in time,[21] but choices change based on how those choices are presented or framed. Evidence of framing effects and their influence in retirement-plan and health-related decision making are discussed below.

Generally, choices are made in the context in which they are presented, with the context carrying a lot of weight in determining which option is selected. In other words, individual choices can be influenced by the choice set in which the available alternatives are presented. For example, it is known that people tend to avoid extremes, as noted by Simonson and Tversky (1992). They found that when two cameras (Camera A costing $169.99 and Camera B costing $239.99) were presented as potential purchases, about 50 percent chose Camera B. But when a third, more expensive camera (costing $469.99) was included in the choice set (making Camera B the middle choice), 57 percent chose Camera B, illustrating the power of the choice set in influencing individual choices.

Similarly, Benartzi and Thaler (2001) have found that the investment options offered to retirement-plan participants play a significant role in their asset allocation. When a retirement plan's investment-option array includes a greater proportion of equity funds, participants' equity allocations similarly increase. From a purely rational perspective, the proportion of equity options offered should not influence the percentage a worker invests in equities.

Given the power of framing and choice-set presentation, within a CDHP, where people are responsible for choosing from a number of complex alternatives, presentation and framing are of critical importance. Plan sponsors are well advised to determine these potential effects ahead of time, and a body of research exploring many of these issues already exists to help inform them. A few examples are described below.

- Preference reversals have been found when health care providers were evaluated singly, versus when they were evaluated alongside one another (Zikmund-Fisher, Fagerlin, and Ubel, 2004).
- When certain medical treatments are framed in terms of their success (survival) rates, patients are more likely to proceed than when treatment is described in terms of its (numerically equivalent) mortality rate. However, the same framing effects do not exist for immunizations and other similar health behaviors (Moxley et al., 2003).
- When certain preventive services, such as mammograms, are presented with anecdotal evidence emphasizing the downside of not getting screened, women are more persuaded to have the procedure (Cox and Cox, 2001).

## Lesson 6: Financial Incentives May Help, But Not as Much as Might Be Expected

In a very general sense, *one* of the tenets of CDHPs is that covered individuals will make better decisions with the right kind of financial incentives. The primary financial "incentive"[22] the plans rely on is greater cost sharing in the forms of high deductibles with lower premiums, and higher co-pay amounts.[23] Both forms rely on workers' behavioral tendencies to favor lower short-term costs, even when it may result in higher future costs (loss aversion and self-control issues). Because these have been previously addressed, the discussion here is limited to another financial incentive offered to CDHP participants—the tax-preferential treatment of HSA contributions.

Within the retirement plan domain, the use of financial incentives to increase saving has had mixed results. The most common incentives include the tax-deferred status of retirement plan contributions and employer matching contributions. Generally, these have not provided the lift in worker retirement savings rates that other, lower-cost, behaviorally based plan design solutions (as discussed below) have had.[24] In fact, despite these incentives, more than 20 percent of eligible workers do not contribute to their company-sponsored retirement plan, according to the Profit Sharing/401k Council of America's 50th Annual Survey (2007). And in a 2005 study of contribution behavior in seven plans, researchers noted that more than 50 percent of workers younger than 59-½ did not save enough to take full advantage of the employer match offered to them (Choi et al., 2005).[25]

One financial incentive, the favorable tax-deferred status of savings-account contributions, is also available to CDHP participants. That such a significant percentage (42 percent) of workers covered by a high-deductible plan and *eligible* to fund an HSA chose not to do so[26] suggests this preferential tax treatment may not be enough to foster savings for future medical needs. In fact, nearly one-quarter of these individuals mentioned that the tax benefits of funding an HSA were not attractive enough to motivate them to fund such accounts (Fronstin and Collins, 2008). Admittedly, the tax incentives are relatively small, given the annual limits on contributions. Also, some workers' level of disposable income may prohibit them from funding an HSA (and in some cases these are the workers to whom a high-deductible plan may be most appealing).

## Lesson 7: Behavioral Tendencies Are Not Easily "Corrected" with Information, Education, and Guidance

Another assumed cornerstone of the successful CDHP is the provision of information and support tools to help workers with their health care decision making. It is intuitive that information, education, and guidance would have positive effects on decision making, but this is not always the case. The disappointing effects of information, education, and guidance in the context of saving for retirement, and examples of similar findings with respect to the provision of health care-related information, are discussed below.

When the difficult job of retirement planning under the 401(k) system (including portfolio management) was thrust upon workers, many employers and providers were responsive and began providing elaborate worker communication and educational materials that often cost millions of dollars.

One prominent study provided empirical evidence of the effects of one such elaborate participant education and communication campaign.[27] The large-company campaign included a variety of resources in addition to onsite seminars, such as savings plan brochures, a company Web site with information about the company's retirement plan, a phone-based retirement planning center, and a phone-based worker assistance program that offered individualized financial consultations. The seminars were offered over a six-month period at 42 company locations. By most standards, the campaign would be considered extremely thorough. At the end of seminars, researchers surveyed attendees about their future saving and investing intentions. Many of the respondents said they planned to begin participating, increase their savings rates, and/or adjust their investment allocations. Then, by studying the plan's recordkeeping data for six months afterward, researchers were able to track respondents' actual behavior. Figure 2 shows that while many "educated" workers had good intentions, very few did anything about them (Madrian and Shea, 2001), suggesting that the money spent on communication and educational resources did not produce the intended results.[28]

Figure 2

**Financial Education and Actual vs. Planned Savings Changes**

| | Seminar Attendees | | Nonattendees |
|---|---|---|---|
| Planned Action | Planned change | Actual change | Actual Change |
| Nonparticipants | | | |
| Enroll in 401(k) plan | 100% | 14% | 7% |
| 401(k) Participants | | | |
| Increase contribution rate | 28 | 8 | 5 |
| Change fund selection | 47 | 15 | 10 |
| Change fund allocation | 36 | 10 | 6 |

Source: James J. Choi, David Laibson, Brigitte C. Madrian, and Andrew Metrick, "Saving for Retirement on the Path of Least Resistance," in Ed McCaffrey and Joel Slemrod, eds., *Behavioral Public Finance: Toward a New Agenda* (New York, NY: Russell Sage Foundation, 2006: 304–351), © 2006 Russell Sage Foundation, 112 East 64th Street, New York, NY 10021. Reprinted with permission.

Note: The sample is active 401(k)-eligible employees at company locations that offered financial education seminars from January–June 2000. Actual changes in savings behavior are measured over the period from Dec. 31, 1999, through June 30, 2000. Planned changes are those reported by seminar attendees in an evaluation of the financial education seminar at the conclusion of the seminar. The planned changes from survey responses of attendees have been scaled to reflect the 401(k) participation rate of seminar attendees.

Some could argue that it is sufficient if workers are better educated even if they do not take any action. However, based on the results of the most recent John Hancock participant survey (2002), there do not seem to be significant improvements in participant knowledge despite the millions of dollars and significant amounts of time spent on education:

- Forty percent of retirement plan participants still believe that money market funds include stocks (an 8 percentage-point improvement in 10 years).
- Of the 45 percent who knew that money market funds invest in short-term securities (down from 52 percent in 1992), only 8 percent knew that the funds only include short-term securities.
- On average, 2002 respondents, like their 1992 counterparts, still (wrongly) said that company stock is less risky than a diversified stock fund by giving it a risk level of 3 versus 3.1 for a diversified stock fund (on a scale of 1 to 5, where 5 represents very high risk).

A certain segment of workers is not interested in education or information. The fact is that some retirement-plan participants do not want to become portfolio managers, even if the portfolios they are managing are their own. To address the needs of these people, retirement-plan sponsors began offering advice and guidance to participants. With these tools, which are typically available online and supplemented by call-center representatives, the advice program provides direction on how an individual's retirement portfolio should be invested. The participant or the plan sponsor may pay a reasonable fee for this service. But typically, when retirement-plan participants have access to integrated advice tools through their

retirement plan, only about 5 percent to 15 percent actually use them.[29] It remains to be seen whether the increased accessibility of advice as a result of the PPA will lead to greater usage. While a majority of EBRI's 2007 Retirement Confidence Survey respondents said they would take advantage of professional investment-management advice, two-thirds said they would probably only implement some (but not all) of the recommendations (Helman, VanDerhei, and Copeland, 2007).

Employers have also made a concerted effort to provide workers with additional information to help them make good health care choices. While it is generally believed that further improvement is needed,[30] some progress has been made. The full effect of providing more information is unknown, but what is known is not entirely positive.[31]

Consider the results from two controlled experiments. In the first, workers were randomly assigned to experimental conditions to assess their ability to interpret and understand health plans. The study focused on the Consumer Assessment of Health Plans (CAHPS). In one of the conditions, subjects simply received the plan information, and in the other, they also received information explaining why the CAHPS information is important and directions on how to use the data in comparing plans. When subjects received the additional information on how to understand the plan-quality charts, they were actually *less* able to understand the charts and more likely to describe the benefits incorrectly (Hibbard et al., 2000).

In another experiment conducted with Medicare beneficiaries, subjects receiving more information were less likely to use it (McCormack et al., 2001). Here, the decisions of subjects in three experimental conditions were compared with the decisions of people in the control group. In one experimental condition, subjects received a copy of the *Medicare & You* publication; in another, they received this same publication along with a Consumer Assessment of Health Plans report giving quality scores on area Medicare HMOs; and in the final experimental condition, people received a shortened version of *Medicare & You*. People in the control condition did not receive any of these publications. People in the experimental conditions (who received more information), were less likely to use it and also less likely to switch plans.[32]

Where do workers go for help with their health care choices? The CDHP's corollaries to investment advice and guidance include online decision-support tools and phone assistance provided by nurses and/or health coaches. For general health care information, many workers report using the Internet, but most (57 percent) rely on families and friends as their primary sources for health care quality information. While nearly 80 percent of employers offer a nurse line, only about 9 percent of their workers actually use it (Watson Wyatt, 2007).

Based on observed behaviors, it is likely that more information and more decision-support tools alone will not optimize decision making or be valued by workers.

## Lesson 8: Many Workers Are Simply Disengaged Until It's Too Late

Many people remain disengaged from matters they do not have an immediate need to address, and unfortunately, by the time the need becomes immediate, it is often too late. For example, some workers do not begin to seriously think about their financial needs in retirement until they are in their 50s, after 30 years of compound growth has passed them by. Similarly, many people do not become engaged in their health care until they become sick or have a problem. Greater choice, financial incentives, and decision-support tools are not likely to effectively overcome everyone's retirement and health care disengagement.

One of the reasons that workers do not generally spend much time thinking about retirement saving and investing decisions or health care is because they do not perceive an immediate need to do so on any particular day, and therefore, a certain level of disengagement exists. For many, *there is no immediate need*, and both the potential costs of disengagement and the potential benefits of becoming engaged may not be readily apparent. This dynamic makes it easy to delay *important* but *nonurgent* decision making.

According to EBRI's most recent Retirement Confidence Survey, 40 percent of workers are not currently saving for retirement (Helman, VanDerhei, and Copeland, 2007). With respect to health-care decision making, although a relatively low percentage of workers with employment-based health benefits available are uninsured (5 percent) (Fronstin, 2007), workers do appear to be relatively disengaged when it comes to their interest in consumer-driven health plans. In a survey by Fidelity's Research Institute, nearly one-fourth of respondents did not know whether their employer even offered a CDHP. More than 75 percent of respondents without access to a CDHP said they were not interested in having access. Additionally,

respondents reported little interest in seeking alternate health plan options, and most respondents said they were satisfied with their current plan (Fidelity Research Institute, 2007).[33] This level of disengagement will be difficult to overcome if plan sponsors rely solely on financial incentives, information, and choice as their primary tools.

General disengagement in health care status is also observed. While the benefits of the annual physical examination have been argued, most patients and doctors believe that there are some benefits, and yet only about 20 percent of the adult population has one, and less than 20 percent of the adult female population undergoes an annual gynecological exam. Of course, annual physicals are not the only means of engaging preventive services. However, of the 12 of the National Commission on Prevention Priorities' 25 preventive services for which usage data are available, for all but the most basic services (e.g., blood pressure testing, childhood vaccinations, cholesterol screening) less than 50 percent of the American population takes advantages of these services as prescribed (2007).

Also, consider the obesity epidemic: Data from two National Health and Nutrition Examination Surveys show that, among adults ages 20–74, the prevalence of obesity increased from 15 percent (in the 1976–1980 survey) to 32.9 percent (in the 2003–2004 survey). Nearly one-third of America's population is obese, despite obesity's strong links to poor health outcomes such as Type II diabetes and heart disease.

## *Lessons Learned About Effective Plan Design*

After consideration of existing behavioral tendencies noted by market researchers, psychologists, and behavioral economists, as well as analyses of workers' retirement plan behaviors, behaviorists offered a number of prescriptive solutions to help overcome some of the observed decision-making pitfalls. Generally, these lessons have resulted in a move toward the use of default choices (elections that automatically apply when workers do not make active choices on their own) and greater simplification. In short, retirement-plan sponsors have come to realize that it is much easier to change *plan design* than it is to change *worker behavior*.

The plan-design changes that some plan sponsors have implemented effectively overcome the negative effects of workers' suboptimal choices. Many of these lessons could potentially be applied to improve the design of CDHPs to possibly overcome workers' suboptimal health-care decisions as well. Some of these lessons and thoughts for their application in health-care plan design are briefly discussed below.

### Lesson 9: Good Default Choices Improve Outcomes

To overcome disengagement, cognitive limitations, loss aversion, poor self-control, and the negative effects of offering too many choices, more retirement-plan sponsors have adopted automatic-plan features such as automatic enrollment, automatic-contribution escalation, and automatic investment in a diversified portfolio. These features were all effectively endorsed by the Pension Protection Act of 2006.

The favorable results of automatic-plan features have been impressive—generally more than 90 percent of automatically enrolled participants remain in the retirement plan,[34] and projected replacement rates for participants in the lowest-income quartile increase by more than 125 percent when they are automatically enrolled at a 6 percent contribution rate in a lifecycle fund (see Figure 3). Automatic-service plans have effectively made retirement-plan savers out of people who had not been previously motivated by financial incentives or education.

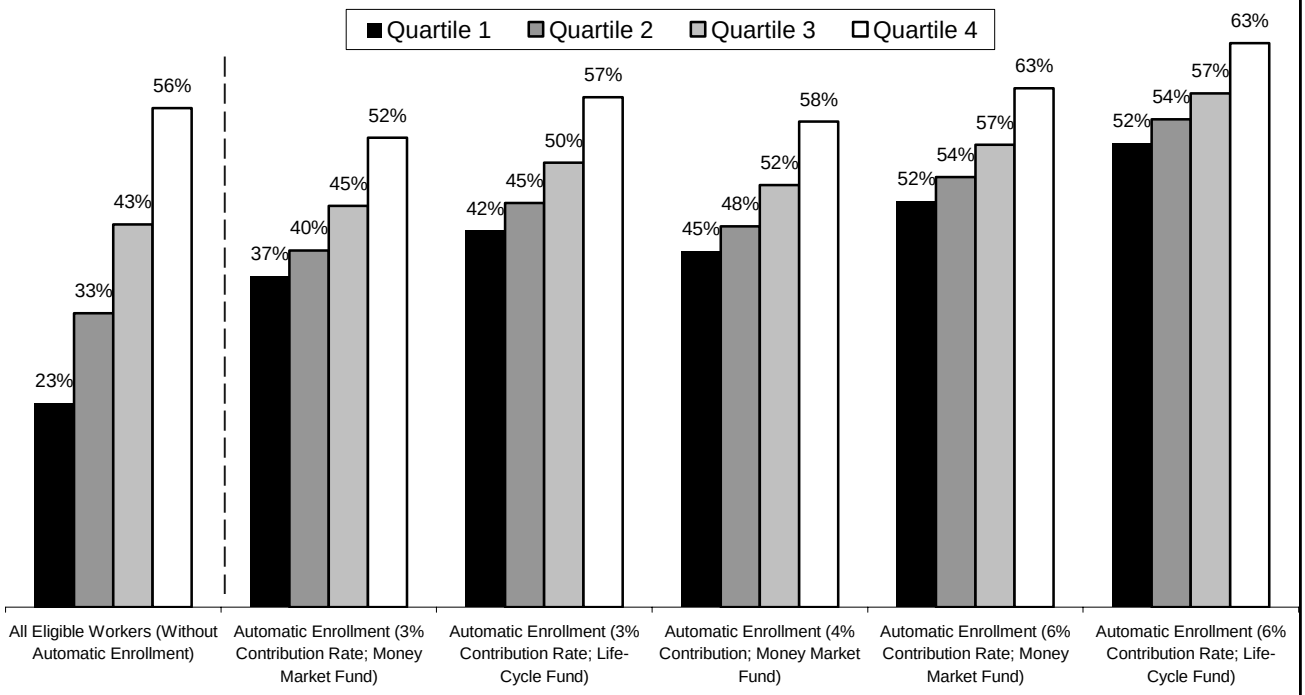
Some plan sponsors were initially reluctant to automatically enroll participants, even with the PPA safe harbor, fearing worker backlash; however, worker reaction to automatic enrollment has been favorable. Highlights from a recent survey by Retirement Made Simpler (Harris Interactive Inc., 2007) include:

- 97 percent of automatically enrolled participants were satisfied with the process of being automatically enrolled.
- 85 percent agreed that automatic enrollment allowed them to start saving for retirement earlier than planned.
- 95 percent said that automatic enrollment made saving for retirement easy.
- 98 percent said they are glad their company offers automatic enrollment.

Figure 3

**Median Replacement Rates From 401(k) Accumulations[1] for All Eligible Workers[2] Turning 65 Between 2030 and 2039, by Income Quartile at Age 65**

(percentage of final five-year average salary)




Source: EBRI/ICI 401 (k) Accumulation Projection Model.

[1] The 401 (k) accumulation includes 401 (k) balances at employer(s) and rollover IRA balances.

[2] All eligible workers includes 401 (k) plan participants with account balances at year-end 2000 and eligible nonparticipants.

Who would have predicted that automatically enrolling workers would make them so happy?

The implications for health care plan sponsors are admittedly not obvious, and for many reasons. The heterogeneity of a work force's health care needs (and therefore optimal default choices) and the infrequency with which changes can be made complicate the application of automatic default choices. But nevertheless, the potential benefits warrant consideration. Ideas for ways in which default choices in health care benefits may be implemented are briefly discussed below.

- With respect to plan choice, where workers have a choice,[35] consideration may be given to automatically enrolling participants in what is judged to be an optimal plan for most. Automatically enrolled workers would still have the option of actively electing no coverage or selecting an alternative plan.
- For workers automatically enrolled in a CDHP, consideration should be given to also automatically funding an HSA (via payroll deductions) to cover future costs. Careful consideration should be given to the default funding amount.
- Workers could automatically be enrolled in wellness and disease management programs, and they could automatically be assigned a health coach to *proactively* work with them to determine when to seek care and how to select providers.

In his May 29, 2008, presentation to the National Academy of Social Insurance, Peter Orszag posits that well-designed health-related default choices may be particularly effective in improving the health of less-advantaged demographic segments. Default choices in the retirement plan domain appear to be most effective at improving the likely outcomes for less-educated and lower-income groups, and these same groups tend to exhibit suboptimal health-related behaviors as well.

## Lesson 10: Simplified Decisions Improve Outcomes

Many retirement plans that do not automatically enroll eligible workers have sought ways to simplify the enrollment process. A few of these strategies are discussed below, along with implications for CDHPs.

One successful simplified-enrollment process bundled the saving and investment decision, much like automatic enrollment, except that eligible workers signed a card indicating their acceptance of the "default" savings rate and investment selection. This is much easier than the standard enrollment process, in which workers receive a packet of information and have to make separate decisions about a contribution rate and how to invest their money. The information packets are often voluminous with ominous disclosures. It is reasonable that many people simply never get around to signing up for the plan because they feel obligated to read the large packets of information before doing so, but never take the time or have the desire to review them.

By comparison, the ability to simply sign and send a postcard is a breeze. In one plan where this strategy was used, enrollment rates tripled, and in others it has increased participation rates by 10 to 20 percentage points (Choi et al., 2006).

Health care decision making can be simplified by bundling what would otherwise be multiple decisions. Perhaps if HSA funding were bundled with enrollment in a high-deductible plan, more people would take advantage of it and benefit from the tax-preferential treatment of HSA contributions. Anyone who is paying for health care expenses out-of-pocket instead of from an HSA when they are HSA-eligible is missing out on the tax advantages that HSA accounts offer. Secondly, enrollment in a high-deductible plan could be bundled with enrollment in a wellness program or assignment of a health coach who would conduct a risk assessment and implement a recommended course of action.

If plan designers carefully studied the health care decision tree to identify all of the decision points, other bundling opportunities could be identified. At these decision points, relevant questions that drive identification of an obvious choice could be framed in simple ways to help direct workers to the most appropriate paths. For example, some retirement plans have structured the enrollment process in a way that asks workers a very simple series of questions as a basis for directing them toward the most appropriate investment selection methodology. The questions are as simple as, "Do you want to select your investments yourself?" or, "Would you like help selecting your investments?" Responses drive the presentation of the most appropriate paths. A similar line of questioning can be envisioned for workers trying to select health insurance coverage or a service provider.

Large, complex choice sets can also be packaged or labeled to help decision makers focus on a more manageable subset of alternatives. When there are numerous funds available in a retirement plan, sponsors will often categorize them by asset class or label a subset of the funds "core" and segregating the others into increasingly specialized "tiers," suggesting that only the most sophisticated investors would be interested in the highest, most specialized tier. Similar approaches could be taken for health care choices.

## Lesson 11: Requiring Active Decisions Improves Outcomes

It's often not known why people fail to make an active decision. Did they just delay and procrastinate, or did they actively decide to decline? When an active decision is *required*, the answer to the latter is known. With required active decision making, workers must indicate whether they accept or decline a particular offering; failure to respond is not permitted. In one plan studied by researchers, this technique resulted in an increased acceptance (plan participation) rate of up to 28 percentage points (Choi et al., 2005).

"Required" active decision making in the health care domain could also have similar positive effects. It is indeed likely that people have good intentions with respect to funding an HSA or participating in a company-sponsored wellness program but just never get around to doing so. With required active decision making, workers would make an active decision to not save or participate, often by signing statements that say something like, "the possible consequences of not participating in the company-sponsored wellness program have been fully explained to me, and I am accepting the risk of declining participation." If this approach were implemented, it is quite possible that more people would fund HSAs and participate in company-sponsored wellness programs.

### Lesson 12: All Information Is Framed in Some Way, and Framing Can Improve Outcomes

Earlier, this *Issue Brief* discussed the fact that people do not have well-defined choices and that their choices vary based on the context in which they are presented. While this may be irrational, it offers a tremendous opportunity to influence the decisions people make. A few examples of how framing can impact health-related decisions are presented above. Simple, subtle framing differences can make the difference between someone having a mammogram or not having one. To put it more dramatically, it may make the difference between someone surviving breast cancer or not surviving it. Any behavior or alternative is framed, even when the framing is unintentional. Framing is powerful; it should be carefully considered and intentional, especially for important decisions such as those related to health care.

### Lesson 13: Commitments to Future Self-Control Can Be Effective

More people are willing to improve their behavior—whether it is financial or health related—tomorrow as opposed to today. As such, many retirement-plan sponsors offer workers a way to commit to future increases to their retirement-plan contribution rates, and the increases continue until a specified cap is reached. In this case, inertia benefits the participants.

An interesting application of this concept has been applied at one company where health coverage under one of two plans offers more generous benefits conditional on a worker's commitment to a Personal Health Improvement Prescription (PHIP). Interestingly, the PHIP also *requires* the workers to engage a care counselor when health issues arise. The plan applying this approach has found it very successful in motivating improved health behaviors. For example, enrollment in the more generous health care plan is conditional on completing a wellness screening, followed by a health risk assessment when requested. Enrollment is also contingent on following a personalized health plan that specifies educational training and/or health improvement activities, some of which involve support and mentoring from nurses and other health professionals. Finally, covered workers sign an agreement acknowledging that failing to follow their PHIP will result in disenrollment from the more generous health care plan. Although the plan has been in place for only about 16 months, 95 percent of workers chose the more generous health care plan requiring commitment to a personalized health plan, and the 93 percent of workers who remain have continued to meet the conditions of continued coverage under the plan.

### Lesson 14: Empirically Analyze Worker Behaviors to Gain Further Knowledge

Better retirement-plan design evolved only *after* workers' retirement-plan decision making was empirically studied and interventions were tested with empirical rigor. Seemingly inconsequential details can have significant behavioral implications, and to confidently determine which of these lessons should be and may be successfully applied, more empirical analysis must be conducted. For example, answers to the following questions may add additional insight into how to move workers toward improved health behaviors:

- How do HRAs and HSAs influence health care service usage, by type?
- How do HRAs and HSAs influence satisfaction?
- How does health care spending relate to account balances?
- What interventions are most successful at overcoming unhealthy behaviors?
- How can health information be optimally framed, and does the framing need to vary by demographic segment?
- How do health surprises influence continued enrollment in a high-deductible plan, and does the existence of a savings account matter?
- How do deductible and premium levels influence plan selection, relative to co-pays?
- What factors are the most influential in plan selection?

## *Summary and Conclusion*

Employment-based health and retirement benefit programs have followed a similar path of evolution. The relative decision-making roles of the employer and the worker have shifted *from* the employer *to* the worker, and workers are more responsible than perhaps they ever have been for their well being—both in terms of their health in general and their financial security during retirement. This shift has been supported, in part, by legislation—namely ERISA, the HMO Act of 1973, the Revenue Act of 1978, and most recently, the Pension Protection Act. This *Issue Brief* does not pass judgment on this development or address who *should* bear the responsibilities of preparing workers for retirement or of rationing health care services.

The current trend in health care design is toward increased "consumerism." Consumer-driven health is based on the assumption that the combination of greater cost sharing (by workers) and better information about the cost and quality of health care will engage workers to become better health care decision makers. It is hoped that workers will seek important, necessary, high-quality, cost-effective care and services, and become less likely to engage providers and services that are unnecessary and ineffective from either a quality or cost perspective.

As employers look ahead toward continually improved plan design, there may be benefits in considering the lessons learned from studying worker behaviors. Specifically, there is evidence about the effects of choice, financial incentives, and information on worker decision making. As a result of research in this area, many retirement plan sponsors have moved toward plan designs and programs that recognize the benefits of well-designed defaults, simplified choices, required active decision making, framing, and commitment to future improvements.

With respect to choice, it is now known that more is not always better and may even be worse in some cases. Just as fewer shoppers actually bought a jar of jelly when it was one of 24 as opposed to one of six, evidence has shown that people tend to be less likely to join a company-sponsored retirement plan when more investment options are offered. More choice can also lead to lower satisfaction. It is also known that workers may not be able to appropriately sort through many complex alternatives and that education is not always as effective as employers would hope. Decision complexity often forces people to find a way to simplify, and one of the easiest rules of thumb is to pick the option with the lowest short-term cost, even when that alternative is more costly in the longer run. It is also known that, for good or for bad, choices are constructed on the fly; preferences are dynamic, and logic does not always apply.

Financial incentives are helpful in motivating behavior, but they do not affect everyone's decisions. Despite significant financial incentives to participate in 401(k) plans, many workers choose not to. Similarly, despite many of the financial incentives embedded in health care plan design, it can be expected that these incentives will not effectively motivate and engage all workers.

One seemingly rational approach to improve workers' decision making is to provide education and guidance to help them sort through complex alternatives and to demonstrate the value of financial incentives. Certainly, providing education and guidance in the form of decision support tools may be an employer's responsibility. However, some studies have shown that, even when "educated" workers have the intent to make improved decisions, they often lack follow-through and fail to take action. In short, education and guidance may not be enough to foster improved health care consumerism.

Some employers have begun to design benefit programs with a view toward overcoming behavioral tendencies that negatively affect workers' well-being. Newer retirement plan designs involve careful consideration of default choices. These defaults apply unless workers actively choose a different alternative. Typically, the default attempts to "nudge" workers toward optimal behavior. In the case of 401(k) retirement plan design, more employers are moving toward a default of automatic enrollment in the plan, with automatic investment in a diversified portfolio.

Still, additional empirical research and experimentation may be needed to further understand the effects of new retirement plan design features. Future work may also precisely illuminate how the lessons discussed in this *Issue Brief* may apply to health care plan design that results in improved health-related behaviors. Given the impressive preliminary results in improving retirement planning behaviors, such research and experimentation are likely to be worthwhile.

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## *Endnotes*

[1] See Olsen and VanDerhei (1997).

[2] Whitehouse, *EBRI Notes,* Dec. 2003.

[3] EBRI, *Retirement Income Opportunities in an Aging America: Coverage and Benefit Entitlement* (Washington, DC: Employee Benefit Research Institute, 1981).

[4] The federal government replaced a defined benefit plan with an ultimate formula of 2.4 percent per year of service with one at 1.5 percent per year of service plus a 401(k)-type plan. For a 30-year worker, this meant a defined benefit annuity of 45 percent of pay instead of 72 percent, with the difference to be made up by the defined contribution plan if the worker chooses to participate. Most large private employers have also used this dual-plan model, but they are increasingly moving to total reliance on a 401(k) plan, which like the federal employee plan, includes an initial contribution by the employer for every worker (and thus participation in the plan by all workers).

[5] Average number of funds available for participant contributions, according to the Profit Sharing/401k Council of America's 50th Annual Survey (2007).

[6] Prior to EGTRRA, retirement plan contributions were limited to the lesser of $35,000 (for 2001) or 25 percent of compensation per year. EGTRRA increased this limit to the lesser of $40,000 (indexed for inflation) or 100 percent of a participant's compensation. Therefore, prior to EGTRRA, the range of allowable contribution rates for most plans was between 1 and 25 percent, whereas afterwards it was between 1 and 100 percent, as most plans increased the allowable plan limit to match EGTRRA's upper-most limit.

[7] Permitted insurance also includes worker's compensation, tort liabilities, and liabilities related to ownership or the use of property (such as automobile insurance).

[8] Only Medicare enrollees age 65 and older are allowed to pay insurance premiums from an HSA. A Medicare enrollee under age 65 cannot use an HSA to pay insurance premiums.

[9] The catch-up contribution is not indexed to inflation after 2009.

[10] The Consolidated Omnibus Budget Reconciliation Act of 1985.

[11] Note that Mitchell, Yang, and Utkus (2005) estimate that adding two funds to the *total* average plan menu (of 12.6 options in 2001) would encourage another 2 percent of eligible non-highly compensated employees to join the plan. However, they find that adding more *equity* funds (a subset within the total) *decreases* plan participation by about 2 percent.

[12] Reuters, "NIH-funded Vanderbilt Research Seeks Ways to Avoid Information Overload in Health Care Choices Among Seniors," March 5, 2008, online at http://www.reuters.com/article/pressRelease/idUS176431+05-Mar-2008+PRN20080305 (checked July 29, 2008).

[13] Not calculating retirement needs is most likely caused by a number of factors—not just its complexity.

[14] These results are based on the performance of various health-related tasks by 19,000 American adults. Health literacy was defined as "the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions" (U.S. Department of Health and Human Services, 2000, and Institute of Medicine, 2004).

[15] Of the 27 percent of respondents in EBRI's Retirement Confidence Survey who reported feeling very confident about their financial security in retirement, 24 percent aren't currently saving for retirement, 43 percent have less than $50,000 in savings, and 37 percent haven't performed a retirement-needs calculation (Helman, VanDerhei, and Copeland, 2007).

[16] There is also evidence that in some cases when consumers face complex decisions, such as health care decisions, they actually prefer to transfer decision-making authority to their care provider (Beattie et al., 1994).

[17] Behaviorists call this concept "hyperbolic discounting." People tend to have a much higher discount rate in the very near term than they do in the future.

[18] For further information, see the RAND report online at www.rand.org/pubs/research_briefs/2006/RAND_RB9174.pdf

[19] One example of this research is "Unintended Consequences of Caps on Medicare Drug Benefits" (Hsu et al., 2006).

[20] For additional information, see "Value-Based Insurance Design," by Michael E. Chernew, Allison B. Rosen and A. Mark Fendrick, *Health Affairs,* Vol. 26, No. 2 (2007): w195–w203 (published online Jan. 30, 2007; 10.1377/hlthaff.26.2.w195).

[21] Changes in preferences may be rational *over time;* preference changes *at a particular point* in time as a result of choice presentation variation are not.

[22] While increased cost sharing is commonly viewed as a financial "incentive," it is actually a *penalty* (exploiting employees' loss aversion) for using health care services in a CDHP—evidence that CDHP proponents understand framing on at least some level.

[23] It is worth noting that even cost sharing as an incentive may possibly be improved. Since about 10 percent of patients account for about 70 percent of all spending in any given year (Berk and Monheit, 2001), spending is concentrated; this suggests that a relatively large portion of the spending may also exceed the deductible, where incentives may be weaker. And spending that exceeds a plan's annual out-of-pocket maximum is not guided by any incentives at all. In addition,

there are few incentives to choose more efficient and effective providers, as copayments are very often the same for all network providers. Finally, incentives often do not vary for important preventive services and other services.

[24] Since employer-matching contributions must be made through Sec. 125 plans (and are not part of the HSA), the behavioral effects of employer-matching contributions are not covered in detail here. Generally, existing research shows that matching contributions increase participation, and that the level matched (the match-cap rate) is more influential on participant contributions than is the match rate.

[25] Even among workers over age 59-½ who are able to withdraw their contributions without penalty, more than half fail to take advantage of the arbitrage opportunity by saving enough to take full advantage of the employer matching contribution.

[26] According to the EBRI/Commonwealth Fund 2007 Consumerism in Health Survey (Fronstin and Collins, 2008).

[27] Prior to the research described here, research had focused on the intentions of those who had been educated, not their actual behaviors subsequent to their education. As is shown in Fig. 2, it is not surprising that education judged by intentions would be deemed "successful."

[28] In some cases, when people are able to take action (such as signing up to participate in a retirement plan) at educational seminars, efforts are more successful. However, this option is likely infeasible for health care education, where the individual health care needs are so diverse and dynamic.

[29] Authors are aware of usage rates as low as 2 percent in plans. Agnew (2006) provides an example of usage rates of 15 percent.

[30] Less than one-third of respondents reported that their health plans provided them with information on either the quality or the cost of their doctors or their hospitals (among those who had either been admitted to a hospital or had a family member admitted in the past two years) (Fronstin and Collins, 2008). In addition, only 7 percent of employers report that available information about the cost of health-care providers is "excellent" or "good," and only 10 percent rate information on care quality as "good" (Watson Wyatt, 2007). None rate the information on care quality as "excellent."

[31] According to a Watson Wyatt 2007 survey, 52 percent of employees said they actually read the health-plan materials provided by their employer at enrollment.

[32] However, all publications in this experiment included the following statement: "You don't have to change health plans this year if you are happy with the plan you have." The expected effect of such a statement is strong support of individuals' tendency to stick with the status quo, and may have, to some extent, influenced the experiment's results.

[33] Fidelity surveyed 1,005 respondents from employed, insured households who identified themselves as being at least "somewhat" familiar with their households' primary health insurance plan and being involved in health care decision making.

[34] Based on T. Rowe Price plan experience as of Dec. 31, 2007, measured at the end of automatic enrollment grace period, which varies by plan. Academic researchers have found that default persistency declines over time, but that even after three years, between 29 and 48 percent of workers retained the plan default choices (Choi et al., 2006).

[35]Approximately one-half of workers do not have a choice. See Exhibit 4.2 in www.kff.org/insurance7527/upload/7527.pdf

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