

# Beyond Defaults:

Using Behavioral Economics and Psychological Science  
to Improve Retirement and Health Outcomes



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## **About the International Foundation of Employee Benefit Plans**

The International Foundation of Employee Benefit Plans is a nonprofit organization dedicated to providing the diverse employee benefits community with objective, solution-oriented education, research and information. The Foundation delivers research findings, education and networking opportunities to tens of thousands of benefits professionals who seek objective, accurate and timely information.

# Beyond Defaults:

## Using Behavioral Economics and Psychological Science to Improve Retirement and Health Outcomes

### Introduction

Evidence is accumulating that financial literacy and health education programs are not successfully moving most participants to action when it comes to addressing the significant health and financial security challenges they face. Such programs may be successful at raising awareness about these challenges, but they have not been sufficient to improve retirement and health outcomes among a broad population.<sup>1</sup>

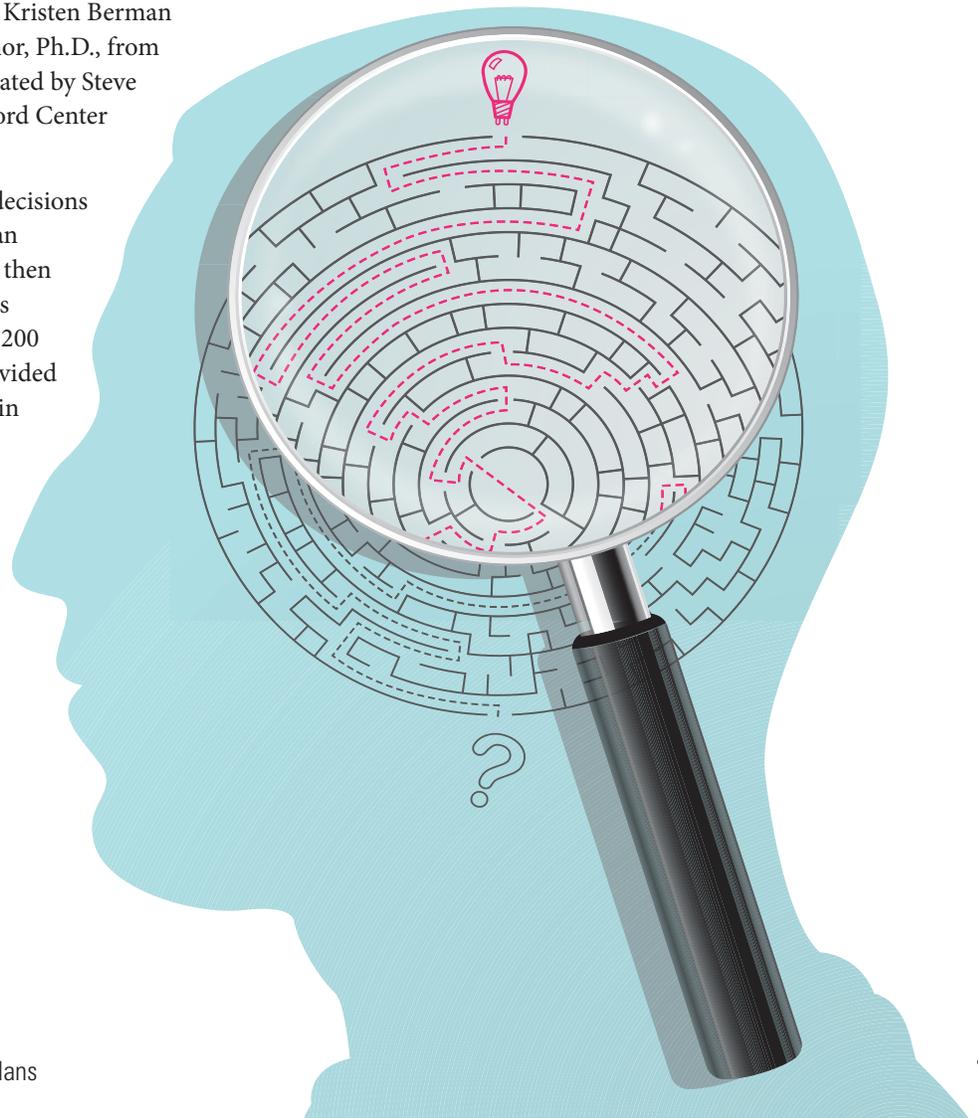
As a result, employers and plan sponsors are interested in learning how to move beyond merely providing information and educational programs to improving participants' financial security and health.

In response to this interest, the International Foundation (the Foundation) hosted a summit in March 2018 to explore how to deploy behavioral economics and psychological science in retirement and benefit plans. The summit featured behavioral economics researchers Kristen Berman of the Common Cents Lab and Justin Sydnor, Ph.D., from the University of Wisconsin and was facilitated by Steve Vernon, FSA, research scholar at the Stanford Center on Longevity.

The goals for the summit were to identify decisions that need improvement, to analyze how plan sponsors could measure improvement and then to explore possible behavioral interventions that go beyond pure education. More than 200 Foundation members participated and provided their input. This paper summarizes the main observations and conclusions from the summit.

This paper starts by discussing the reasons for considering behavioral economics in the design and communication of retirement and benefit programs as well as key behavioral considerations. It also shares reasons we can't be complacent even if workers participate in a defined benefit plan. It describes a research-based design that practitioners can use to integrate various principles of behavioral economics. The bulk of the paper then discusses five key action steps, participant decisions that plan sponsors may want to positively influence and how behavioral interventions might help.

The paper ends with a summary of key takeaways, along with a call to action for plan sponsors to consider deploying behavioral economics to improve outcomes with their participants and to facilitate future research.





## Why Consider Behavioral Economics?

For many decades in the 20th century, economists assumed that workers and consumers made rational decisions regarding their finances and health. For example, economists assumed that when people made important decisions, they:

- Recognized that they faced an important decision that needed their attention
- Spent the time to learn about and study their options
- Calculated the financial consequences of each option
- Made their decisions solely on the economic advantages they would enjoy
- Had the discipline to implement their decisions.

In other words, economists assumed that people made decisions like the highly logical, highly rational Mr. Spock of *Star Trek*.

For many years, the retirement and benefits world consciously or unconsciously agreed with this assumption. Often the response to seeing mistakes and poor decisions made by participants was simply to provide more education or develop more sophisticated calculators or online tools. And this may have worked for the small part of the population that was already motivated to focus on their retirement security and health.

But research is showing that while education programs help raise awareness, they often don't lead to people changing their habits and behaviors. For example, one meta-analysis of 188 research studies found a 0.1% variance in financial behaviors that is explained by content-based, financial interventions.<sup>2</sup>

Madison Avenue and psychologists have long scoffed at the economists' assumption of the *rational consumer*. They knew that workers and consumers:

- Were distracted by television, social media and daily life
- Were limited in their time or ability to analyze their options
- Looked for shortcuts to make decisions, particularly with complex issues
- Had psychological biases that influenced their choices
- Often overlooked, postponed or procrastinated important decisions.

Their image of the typical consumer is probably closer to the sometimes-clueless Homer Simpson than Mr. Spock.

Starting in the latter part of the 20th century, there's been a growing recognition by economists, employers and the financial industry that workers and consumers don't always make decisions that appear to be rational or in their best interests. That's inspired the rise of a new field, commonly called *behavioral economics* but also going by the names *behavioral finance*, *behavioral decision making* or simply *psychology*.

Indeed, the importance of this new field is evidenced by Nobel Prizes being awarded to prominent behavioral economists Daniel Kahneman in 2002 and Richard Thaler in 2017.

Now retirement and benefit plans can utilize a robust field of research on how people make decisions.<sup>3</sup>

## Key Considerations for Behavioral Engineering Design

Let's first distinguish between two important features of this research.

1. Specific phenomena or principles, such as loss aversion or framing
2. Models of how people make decisions.

Both are important. Having a model of how people make decisions can help us determine how to apply various principles, and the two together can be called *behavioral engineering*. As an analogy, knowledge of various principles such as electricity, materials science, physics and chemistry aren't sufficient to build a car—You need engineering design to integrate these principles. Similarly, having a model of how people make decisions can help utilize various behavioral economics phenomena to design a program that can help people make better decisions.

The practical application of this research is to design interventions that go beyond pure education and help influence participants to make more effective decisions. It's important to recognize that the level of precision with behavioral interventions isn't the same as with the physical sciences such as physics and chemistry. Often, the best we can do is influence more participants to make better decisions, but it's unrealistic to expect that the interventions will help *all* participants.

To deploy behavioral engineering, employers and plan sponsors will need to debate a few important considerations.

- What are the *right* decisions that they want to influence? Or, at least, what is the *right direction* of decisions?

- How directive do they want to be? How much flexibility and judgment do they want to give to participants?

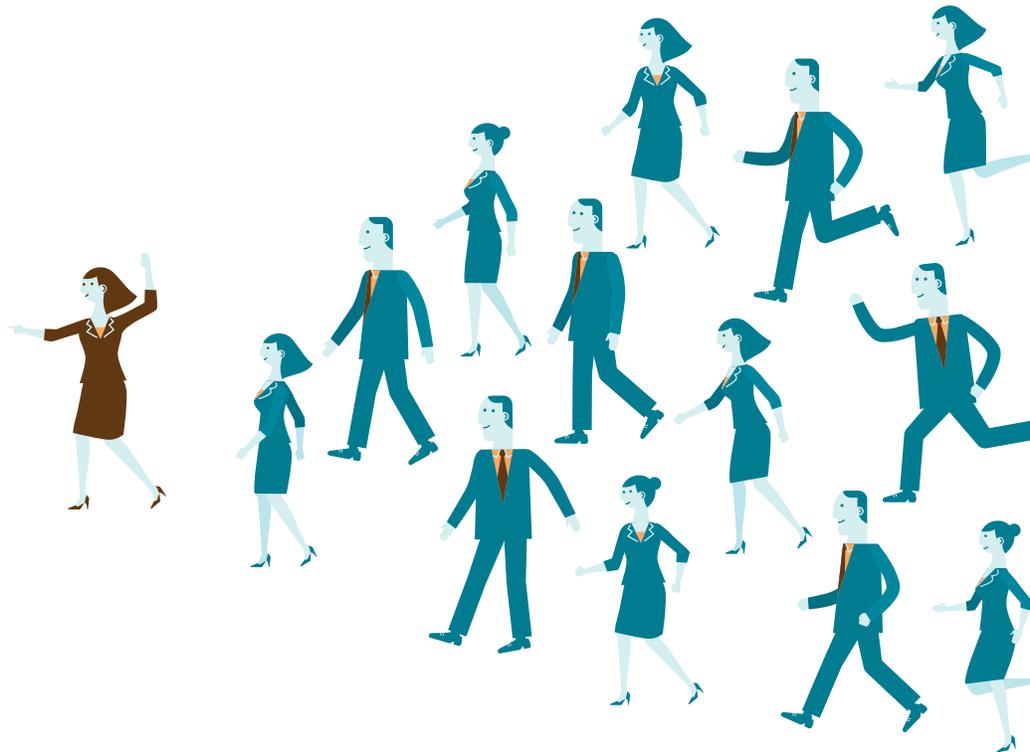
For example, defined benefit plans usually fulfill the responsibility of how much to save and how to invest, saving participants from making these decisions. In other words, these plans do it for the employee. The only flexibility these plans typically provide is the form of payment at retirement.

Plan sponsors and trusts will want to keep in mind three approaches to this flexibility and consider the most appropriate approach for their participants.

1. Do it for me.
2. Help me do it.
3. I'll do it myself.

The answers can be different for various groups of your participants. Also, individuals may desire different approaches for the various financial decisions they need to make.

Much of the initial research on behavioral economics examined methods of influencing people to save more money or invest more effectively. It was relatively simple to define the problem and measure whether the intervention improved results. These findings can be applied to more complex decisions, such as when to retire, when to start Social Security benefits, how to deploy savings in retirement, selecting and utilizing health care plans, and adhering to medically prescribed regimens.



## Avoid Defined Benefit Plan Complacency

Many participants tied to Foundation members are covered by defined benefit pension plans, and there's a natural tendency to think these participants may not need to pay attention to saving and investing. However, there are four problems with this notion.

1. For most plan participants, Social Security will be more valuable than benefits from a pension plan.<sup>4</sup> Participants' decisions regarding when to claim Social Security will significantly impact their financial security in retirement.
2. Not all participants will earn a significant defined benefit pension. Many participants may not have enough service, or a defined benefit plan may not be enough to replace a substantial percentage of income. Many defined benefit plans are designed to provide a basic level of benefits, and many participants will still need savings to retire comfortably.
3. There are still important decisions with a pension plan that are subject to behavioral factors, such as selecting a joint and survivor benefit to cover a spouse or whether to elect a lump-sum equivalent, if offered.
4. Most participants have spouses and other family members who do not participate in defined benefit plans, and it will be important for them to make effective financial decisions.

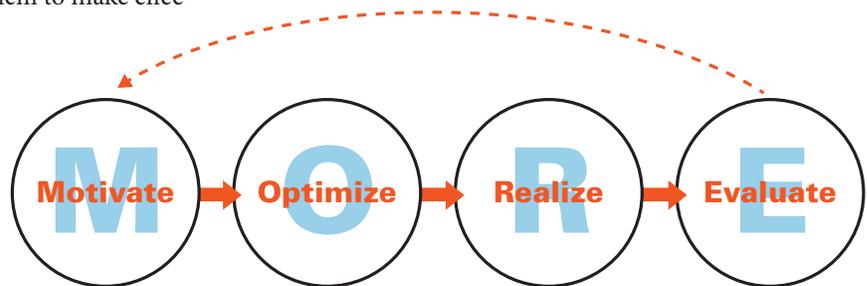
Now let's explore how various academic models can be integrated to design benefits and communications programs.

## Introducing the MORE Design

The MORE (motivate, optimize, realize and evaluate) Design synthesizes a handful of academic decision models to help practitioners design benefit and communication programs.<sup>5</sup> The MORE Design suggests that intervention campaigns should focus on four steps.

1. **Motivate** and inspire participants to spend time on a decision. This is the step that plan sponsors overlook the most.
2. **Optimize**. Analyze and explore options. This step is typically the focus of most educational efforts.
3. **Realize**. Make it easy for participants to choose among their options. Remove any barriers to making and implementing a decision.
4. **Evaluate**. Determine whether you're making progress, and make adjustments as necessary.

It's important to keep this design in mind when addressing challenges facing your participants. This design can help you determine where interventions might have the greatest impact and how you might deploy principles of behavioral economics.



## Five Key Decisions and Action Steps

At the summit, we posed five key action steps and decisions facing plan participants that plan sponsors could positively influence. We selected these steps based on a poll of Foundation members. The summit then addressed behavioral economics interventions that can help with each of these key decisions. Following are the key action steps.

1. Convince younger workers to save for retirement.
2. Help plan participants determine how much to save.
3. Help older workers decide when to retire, including when to start Social Security benefits, elect form of payments under defined benefit plans, and understand how to deploy savings in retirement.
4. Help participants become better consumers of health care.
5. Help participants adhere to medical treatments.

The sections below summarize the behavioral economics principles that could help with each of these decisions.

### Action Step No. 1: Convince Younger Workers to Save for Retirement



Deploying automatic enrollment in retirement savings plans is a very effective way to boost participation in these plans. Automatic enrollment takes advantage of the following behavioral economics phenomena.

- **Inertia:** Participants often have a strong tendency to do nothing. If they are automatically enrolled to participate in a savings plan, they do nothing and allow their participation to remain effective.
- **Social norms:** If most or all co-workers are saving for retirement, it encourages people to save for retirement.
- **Endorsement effect:** Automatic enrollment sends a message from an influential source (the employer or plan sponsor) that it's important to save for retirement.

At the summit, Berman summarized results from a few studies that looked at the impact of various methods on savings plan participation rates. These studies demonstrate the power of automatic enrollment.

- 40% participation rate: opt-in enrollment, requiring a positive election to participate
- 50% participation rate: quick enrollment, when participants just need to check a box
- 70% participation rate: active choice, when an election is required

- 90% participation rate: opt-out enrollment, automatically enrolling participants and requiring a positive election to stop participating.

Berman also presented evidence that for savings plans with automatic enrollment, participation rates were virtually identical for plans with a default contribution rate of 3% of pay vs. 6% of pay. Participants would choose the default, regardless of the amount. This should encourage plan sponsors to design higher default contribution rates with automatic enrollment.

Precommitment strategies can also influence participants to save or increase their savings. For example, a savings plan could take advantage of autoescalation features, which could save a portion of future salary increases, or simply automatically increase the annual contribution rate each year.

One more idea: Plan sponsors could look for ways to make saving more visible and rewarding, such as delivering small rewards or recognition for saving. The problem is that it's easy to observe friends and family spending their money, while saving is invisible—People don't see their friends saving money. Look for ways to reward and recognize saving money.

## Action Step No. 2: Help Plan Participants Determine How Much to Save



Attendees of the summit generally agreed that most plan participants do not use online calculators to help them determine how much to save for retirement. Possible reasons include lack of confidence or sophistication with using online modeling tools and low motivation (remember the first step of the MORE Design).

Berman presented a few strategies that can help improve savings plan contribution rates.

- Help potential participants make a decision. If a plan does not offer automatic enrollment, it can still identify a specific contribution rate as *recommended*, taking advantage of the *endorsement effect*.
- Take advantage of *loss aversion* by adding statements to nonparticipants showing the amount of the employer match that they are losing by not participating. Another idea is to estimate the potential participant's account balance at some future date that would be lost if they do not contribute to the plan.
- With *framing*, show estimated savings amounts tied to annual salary, rather than the hourly rate. This can increase the amounts that participants save.
- Simplify the investment lineup. Too many investment funds can cause confusion with plan participants, leading to lower participation rates.

Attendees of the summit debated whether gap statements are an effective way to increase savings. *Gap statements* project retirement income from pension plans and Social Security and estimate the gap between typical retirement income goals and the retirement income a participant might reasonably expect. Some attendees shared favorable results with gap statements, whereas other attendees said that these statements were read only by motivated participants.

One idea that was proposed to motivate older workers to learn about their retirement income is to ask them: Are you OK living on half of your paycheck? That might encourage them to save more to boost their retirement income.



### Action Step No. 3: Help Older Workers Decide When to Retire

Older workers who are contemplating retirement face a series of very important decisions that will impact their financial security and personal enjoyment for the rest of their lives. For example, many participants retire as soon as possible, forgoing significant increases in their total retirement income that they might earn if they postpone retirement, even for only a year or two.

A recent analysis by Stanford professor John Shoven demonstrates the power of working longer.<sup>6</sup> Workers aged 62 can increase their annual retirement income by one-third if they work four more years to the age of 66 and by roughly three-fourths if they work eight more years until the age of 70. These increases result from:

- Significant increases in Social Security benefits due to postponing benefits
- Additional service earned under traditional pension plans and waiting to eliminate early retirement reduction factors
- Additional investment income earned on retirement savings.

Working longer is a natural response to the longer lives that many people are living today. Retirement can get very expensive if we keep adding extra years of life to the retirement period.

As a result, employers and plan sponsors might consider making accommodations that allow older workers to postpone full retirement, even if for a few years. Such accommodations could be considered part of their overall retirement program.

The following key decisions facing older workers can be influenced by behavioral economics interventions:

- When to retire
- Whether to work part-time for a period
- When to start Social Security
- When to start defined benefit pension distributions
- Whether to elect a joint and survivor pension, if they are married

- When and how to start drawing down retirement savings
- Electing medical insurance before and after eligibility for Medicare (currently aged 65).

To make the best possible decisions, participants will need to spend time learning about their options and the advantages and disadvantages of the choices they face. This is one circumstance where addressing the first step of the MORE Design—motivate—can help influence older workers to invest the necessary time it takes to do the job right.

One technique that can enhance motivation is for people to see a picture of what they might look like in ten, 20 or 30 years. Research shows that seeing a future self can motivate people to take steps *now* to improve life in the future.<sup>7</sup> Apps and computer programs can easily prepare these photos.<sup>8</sup>

Now let's look at various behavioral economics phenomena that can influence an older worker's decision to retire. These often influence the *optimize* step of the MORE Design.

- **Loss aversion:** People tend to feel the pain of losses about twice as much as the joy of gains. Loss aversion, coupled with framing, can have a powerful influence on the decision to retire.
- **Framing:** How do people define a loss that they are trying to avoid? If they define or frame a retirement decision as the loss of fun that they'll have by postponing retirement, loss aversion would influence them to retire early. On the other hand, if they define or frame the loss as struggling financially in their later years, loss aversion would influence them to postpone retirement. As a result, it's helpful for employers and plan sponsors to help participants consider these different views of framing and loss aversion.

- **Stories** often have a greater influence on decisions than facts and figures, which means they can be another powerful influence. Many people have older parents and relatives who are struggling financially, so their stories might influence an older worker to wait to retire. On the other hand, the worker might have work buddies or relatives who are retired and having fun, and that example can influence them as well. At retirement planning workshops, it can be quite powerful to have retirees share helpful steps they took as well as their regrets.
- **Present bias** plays a strong role. Most people prefer a reward sooner rather than later and often place little value on rewards enjoyed in the future. This can influence older workers to start Social Security benefits and pensions as soon as possible, even though these benefits might increase significantly if they delay them for a few years.
- **Social norms** can be another powerful influence, so the words used by retirement plans can play a significant role. For example, *normal retirement age* implies that it's normal to retire at that age.

To continue with the concept that the words pension plans use to describe benefits can influence the decision to retire, consider that *normal retirement benefits* could instead be described with the emotionally neutral term *unreduced retirement benefits*. Similarly, *early retirement* has positive connotations in our society, implying that early retirees are perhaps more successful. Think of the old saying “The early bird gets the worm.” A more accurate term could describe early retirement benefits as *reduced retirement benefits*.

On the other hand, *late retirement* implies that somehow a person has failed and is getting penalized. In actuality, most participants receive increased benefits if they delay retirement. So a plan could describe these benefits as *increased retirement benefits*.

Designing strategies to generate retirement income from savings requires training and skills that most workers don't have. It's natural that they might want to hand off the decision to someone who appears to be more knowledgeable, such as a salesperson, supervisor, or older friend or relative. That's the *endorsement effect* at play, and it's important to investigate whether another person really has the necessary training and credentials and has a worker's best interests at heart.

For example, some insurance salespeople might tell someone to decline a joint and survivor pension that could offer

protection for a spouse. Instead, they might recommend electing the life-only annuity that pays a higher monthly pension and then buying life insurance with their sales company. This can be a mistake for many older workers, but they might trust a person in a suit and tie who talks with confidence.

As mentioned previously, carefully designed *defaults* can have a powerful influence. With most pension plans, the default payment option for married couples is a 50% joint and survivor annuity. However, widows/widowers typically have living expenses that are about 80% of the expenses when both spouses were alive.<sup>9</sup> As a result, defined benefit plan sponsors might consider designating a 75% joint and survivor annuity as the default payment option.

Looming over all the factors described previously is *confirmation bias*. If people have already made up their minds, they tend to focus on facts that confirm their beliefs and overlook facts that might contradict their beliefs.

Of course, there are other factors that can influence an older worker's decision to retire, including:

- The health of the worker or his or her spouse
- The need to care for dependents
- Whether workers enjoy their work and still have goals they want to achieve
- The social connections resulting from work
- The draw of enjoyable life experiences that can result from retirement, such as hobbies and traveling
- Negative influences that might drive older workers out of the workplace, such as boredom, outdated skills, being tired of the grind or not liking a new boss.

A well-designed retirement readiness program could draw attention to these various factors so that older workers make conscious decisions about the most appropriate time to retire and how to deploy the financial resources that they have. Such a program would start with motivation to encourage older workers to spend time learning about their choices. It could include projections of retirement income from Social Security, pension plans and savings at various retirement ages.

A retirement readiness program could raise awareness about all of these behavioral economics factors and help older workers assess whether they are susceptible to these influences.

Many other topics also can be included in retirement readiness programs, such as selecting medical insurance, taking care of personal health, deciding where to live and figuring out how to stay socially engaged.

## Action Step No. 4: Help Participants Become Better Consumers of Health Care



Almost one-third of workers were covered by a high-deductible health plan in 2017, according to one survey.<sup>10</sup> Do these plans help reduce health care spending by plan sponsors?

At the summit, Sydnor reminded attendees of the challenges with health care consumerism. Many participants are confused and unsure, which often leads to decisions that avoid loss and focus just on events happening now or in the near future (in other words, decisions that exhibit a *present bias*).

Sydnor presented research showing that consumer-driven health care plans have the potential to reduce overall health spending by 12%. While this may sound like a desirable result, this cost reduction usually results from reductions in care. There is no evidence of price shopping for health care; instead, participants appear to be reducing both low-value and high-value care.

When faced with a choice of low- and high-deductible health care plans, participants often choose low-deductible plans, showing evidence of loss aversion. This outcome occurs even though a high-deductible plan could result in lower out-of-pocket expenditures, with the reduction in premiums for a high-deductible plan potentially more than compensating for the increased deductible.

Sydnor offered the following suggestions for helping participants become better consumers of health care.

- Frame health care incentives as a loss, which can lead to increased dollars saved among plan participants. In other words, “If you don’t participate, you’ll lose \$XX.”
- In the electronic health record, make generic prescriptions the default choice.
- Display the cost of laboratory tests to impact how clinicians prescribe these tests.

Sydnor suggests that the use of defaults, recommended tests when appropriate and visual communication of health plan spending by participants helps drive participants to more effective decisions.

Attendees of the summit debated whether human resources practitioners really understand how their health care plans work. They might say, “If you think you’ll go to the doctor a lot, choose the low-deductible plan.” However, participants may have lower annual out-of-pocket spending with the high-deductible plan when the difference in premium amounts is taken into consideration.

The attendees also debated the unintended consequences of high-deductible plans. Once participants reach the deductible, they often increase their utilization of health care.

## Action Step No. 5: Help Participants Adhere to Medical Treatments



There is evidence that workplace wellness programs do not significantly influence health care costs. For example, the Illinois Workplace Wellness study<sup>11</sup> found that:

- Workplace wellness did not reduce health care costs after one year or change employees' measured health behaviors
- Employees who participated in wellness programs already had lower health care costs and were already healthier before the program began.

It isn't clear whether this is evidence that workplace wellness programs don't work or that we don't yet know how to design them to be effective. The study does suggest that merely providing participants with information does not result in significant improvements.

It could be that paying more attention to the *motivate* stage of the MORE Design could improve the effectiveness of wellness programs. For example, virtual reality could project pictures of what a person might look like with an additional 20 or 30 pounds of weight. Another possibility is for people to compare pictures of a healthy version of their future self with one who is unhealthy.

One of the challenges is that many participants have good intentions to exercise, eat better or take care of medical conditions tomorrow but, when tomorrow comes, they put it off again to the next tomorrow. This is a classic case of *present bias*. It's not evidence that people are lazy but rather that they are too optimistic that they will do the right thing in the future.

Sydnor offered the following suggestions to help improve health outcomes.

- Consider eliminating copays on medicines that treat chronic conditions.
- Enhance messaging to encourage workers to participate in automatic prescription refill programs.
- Consider instant gratification incentives or lotteries to enhance excitement.
- Leverage loss aversion—"If you don't participate in our wellness program, you'll lose \$XX."
- Focus on behaviors and habits over outcomes. For example, encourage participants to exercise more instead of focusing on losing weight.

## Key Takeaways

### **Action Step No. 1:** ***Convince younger workers to save for retirement.***

- Implement automatic enrollment in your savings plan.
- Select a default rate that results in meaningful contributions, such as 6% of pay.
- Deploy a precommitment strategy with automatic escalation of contributions.
- Look for visible ways to reward or recognize saving.



### **Action Step No. 2:** ***Help plan participants determine how much to save.***

- Show a recommended savings rate on election forms.
- For nonparticipants, project estimated employer matching contributions and future balances, and state the amounts that will be lost due to nonparticipation.
- Illustrate annual contribution amounts instead of hourly amounts.
- Simplify the investment lineup with a default investment option and a small initial lineup of funds—for example, five to seven funds.
- Encourage older workers to learn about Social Security and pension benefits by asking: Are you OK living on half of your paycheck?



### **Action Step No. 3:** ***Help older workers decide when to retire.***

- Look for alternative career paths and other ways to accommodate older workers to postpone retirement, even just for a year or two.
- Consider implementing retirement readiness programs that motivate older workers to learn about their options, and then provide the tools to help them consider the financial consequences of retiring at various ages.
- Consider training line managers to be aware of the various behavioral and financial issues involved with the decision to retire, so they can direct participants to the appropriate resources offered by the plan sponsor or plan administrator.
- Allow retirees to share stories of steps they are glad they took as well as their regrets.
- Review the terms used by your retirement plans to see how they can influence more effective decisions.
- Consider offering a 75% joint and survivor annuity as the default payment option for married participants in pension plans.



### **Action Step No. 4:** ***Help participants become better consumers of health care.***

- Help participants and human resources practitioners understand the financial consequences of choosing between low- and high-deductible plans, taking into consideration both the differences in premiums and deductibles.
- Frame financial incentives in health care plans as a loss if participants don't participate.
- Look for ways to encourage more efficient consumption of care by encouraging clinicians to recommend preventive care and judicious prescriptions of lab tests.



**Action Step No. 5:  
Help participants adhere  
to medical treatments.**

- Remove any barriers to small behaviors that can cascade into significant health improvements.
- Look for ways to motivate employees and beneficiaries who aren't participating in wellness programs. Examples include instant incentives, lotteries, loss aversion and virtual reality.
- Focus on building healthy behaviors and habits (for example, regular exercise) instead of results (such as losing weight).



## Final Thoughts

Much of the research in behavioral economics has been conducted in labs. Indeed, we've gained useful insights from this research about interventions that can improve retirement and health outcomes. The next phase in behavioral economics research, however, is to test behavioral interventions with workforces and customer bases, helping people who are making real-world decisions. This will help enhance our understanding of the principles and refine the appropriate interventions. Employers and plan sponsors can play a significant role in facilitating this research.

Workers of all ages will want to take steps so that they arrive at their later years financially secure, physically healthy and mentally sharp. The retirement and benefit plans offered by employers and plan sponsors are critical tools that can help participants achieve these goals. The next frontier is to design and communicate these plans, taking into consideration the behavioral factors described in this paper, to help improve retirement and health outcomes.

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