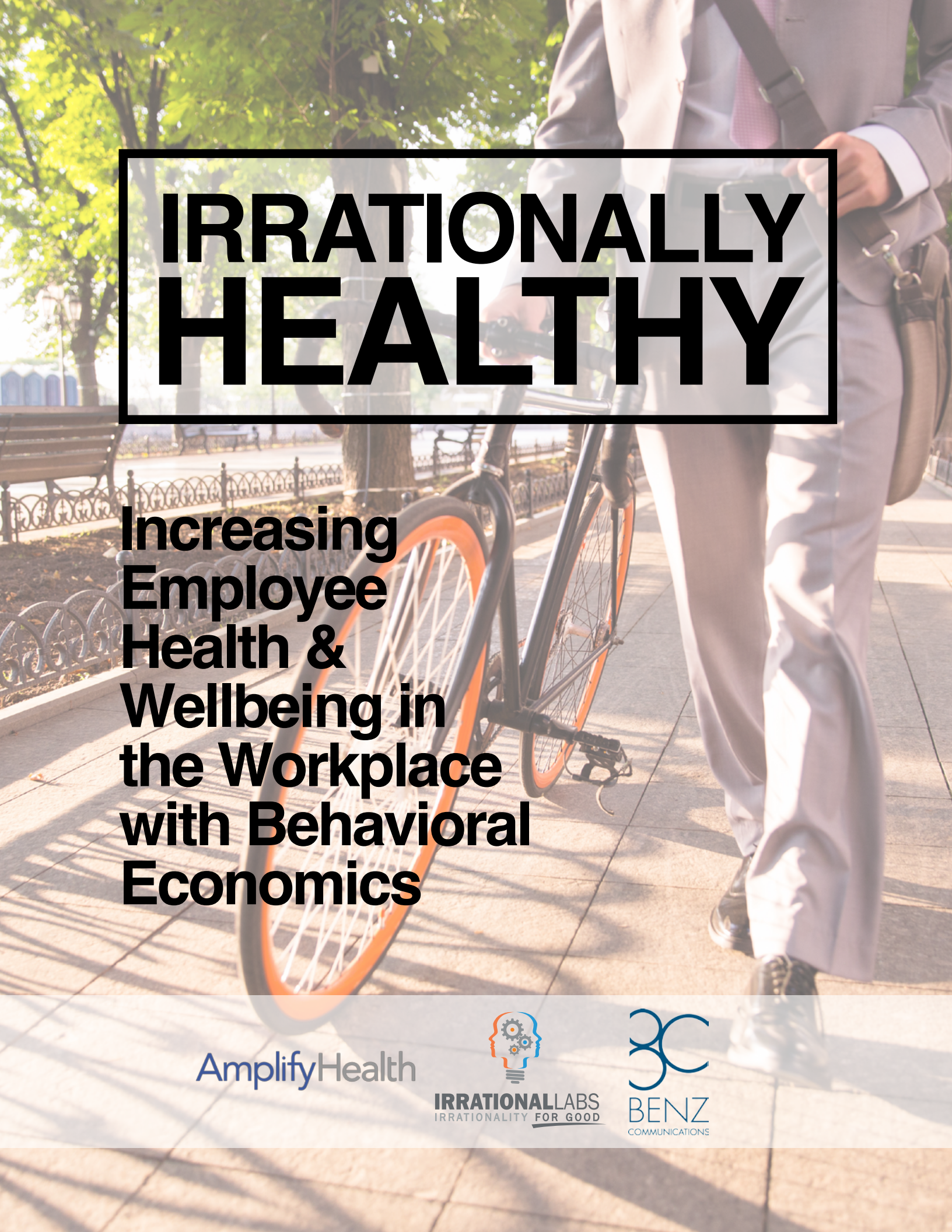


IRRATIONALLY HEALTHY

Increasing Employee Health & Wellbeing in the Workplace with Behavioral Economics

AmplifyHealth

IRRATIONALLABS
IRRATIONALITY FOR GOOD

BENZ
COMMUNICATIONS

ABOUT THE AUTHORS

This report was co-authored by Irrational Labs, Amplify Health, and Benz Communications.

Irrational Labs is a nonprofit that applies and tests insights from behavioral economics to address product, marketing, and societal problems. We have deep expertise in partnering with companies and organizations to design and test behavioral interventions to increase people's health, wealth and happiness. We also frequently lead workshops with companies to integrate the behavioral science approach into their organizations. **Contributors:** Evelyn Gosnell, Ingrid Melvaer Paulin, Kristen Berman

Amplify Health is a primary care management company that uses innovative data and behavioral science based care models to deliver better care to high risk patients. Through our work with large employers, carriers and hospital systems, we improve the health of the sickest individuals while reducing overall health care costs. **Contributors:** Jonas Goldstein, Eric Page, Pranav Kothari

Benz Communications is a communications and marketing agency that is solely, purposefully, and passionately focused on employee benefits. Its proven approach combines the science of behavioral economics with the best of communications strategy and design. Since 2006, the firm has served leading employers and benefits providers, including many Fortune 100 Best Companies to Work For. As a thought leader in the benefits industry, Benz invests in research and resources to help companies educate employees about health, financial, and other benefits. **Contributors:** Lindsay Kohler, Jennifer Benz

Executive Summary

Most employers have a high desire to improve employee health and are investing a non trivial amount of money and staff to do this. However too many of them over-rely on expensive programs and incentive schemes that show little results on behavior change.

At the same time, the fields of behavioral economics and psychology offer insights from field research on what actually works to increase health outcomes. This guide takes those insights and translates them into practical, cost-effective changes that can be implemented within the workplace with surprisingly low effort.

This special report covers:

- Current employer efforts to impact health and wellness.
- Insights from the Irrationally Healthy Conference, a gathering of 17 large employers.
- Recommendations on actions employers can take now to improve health programs.

After you read this, you'll be able to:

- Create a list of small, low-cost changes you can make to improve employee health.
- Tweak your financial incentives to be more effective and motivating for employees.
- Understand key elements required to measure the effectiveness of a new program or partner.
- Evaluate your current programs using existing research insights.

Who should read this:

- People who are responsible and accountable for health improvements within a company (e.g. Chief Health Officer, Medical Director, Health & Wellbeing Director, Chief Health Scientist, etc.).
- People who are responsible for benefits administration (e.g. Benefits Director, Benefit Analyst, Total Rewards and Benefits Director, etc.).

TABLE OF CONTENTS

CURRENT STATE – THE PROBLEM

This report was funded through a grant from Robert Wood Johnson Foundation.

America is in a health crisis.

This statement is often made, but examining the data behind such claims illuminates the magnitude of the problem—and why **a fresh approach is critical**.

Consider this: the leading cause of death in America is heart disease[1], but the Centers for Disease Control and Prevention (CDC) estimates that 34% of those deaths[2] were premature and could have been prevented. Our health care spending per capita is higher than that of any other developed nation, and yet we still have the highest levels of obesity within that same group. For example, Singapore spends just 4.7% of their gross domestic product (GDP) on health care and the United Kingdom (U.K.) spends 9.3%. America spends almost twice as much on health care as the U.K.– a staggering 16.9% of our GDP. It's not just a nation-wide impact, either. On an individual basis, we're spending more on health care than every other developed nation except Switzerland. How much, exactly? The average American spends $1,045 each year on health care – in addition to their premiums for medical plans[3]; this is approximately 7% of the median income.[4]

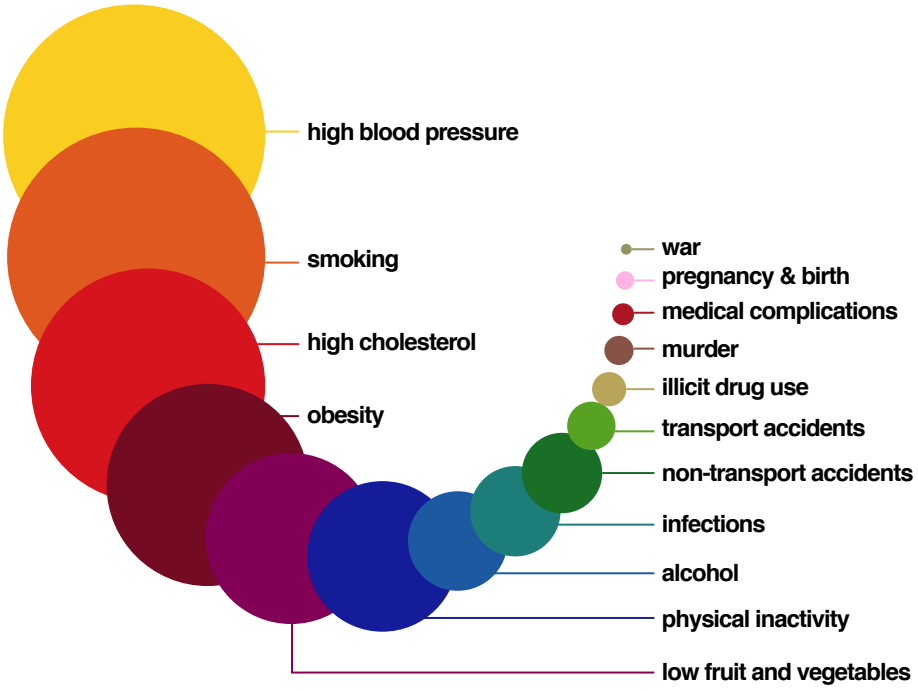
1 Leading Causes of Death. (2016). Retrieved September 26, 2016, from http://www.cdc.gov/nchs/fastats/leading-causes-of-death.html

2 Up to 40 percent of annual deaths from each of five leading US causes are preventable. (2014). Retrieved September 26, 2016, from http://www.cdc.gov/media/releases/2014/p0501-preventable-deaths.html

3 Mossialos, E., Wenzl, M.., Osborn, R., & Anderson, C. (2015). International Profiles of Health Care Systems, 2015. doi:10.15868/socialsector.25100

4 Health Insurance Marketplace Calculator. (n.d.). Retrieved September 26, 2016, from http://kff.org/interactive/subsidy-calculator/

Risks leading to death in perspective



If these stats don't convince you, the National Health Service in the UK examined what was most likely to kill citizens and it isn't the usual suspects of war, murder, drugs or alcohol[5]. As a species, we struggle to assess true risk to ourselves, which is perhaps why high blood pressure, smoking and high cholesterol (the top killers) don't sound as scary as alcohol abuse or murder. There simply is less incentive to change behavior. It's much easier to fear the sharks that kill dozens than the mosquitos that kill millions. Heart disease is the mosquito.

As a species, we struggle to assess true risk to ourselves.

Something needs to change. Often, the direction to "get healthy" is used as a cry for empowerment and puts the pressure on the individual to take charge of their life. Scan the headlines on any newsstand or in any lifestyle magazine and you'll see calls to action to "Exercise more! Eat better! Your best beach body ever!"

5 Lauren F Friedman (2015). The things most likely to kill you in one infographic. Retrieved September 26, 2016, from http://www.businessinsider.com.au/the-things-most-likely-to-kill-you-in-one-infographic-2015-2

However, we spend about one-third of our adult lives at work[6].

What if that time at work was actively used to help employees improve their health? Employers have an amazing opportunity and responsibility to impact their employees' health through the programs they offer, how they communicate them, and the way they design the workplace.

WHAT IF ...

Imagine a world where:

Employee cafeterias are designed to nudge healthier food choices, resulting in 50 fewer calories consumed a day per employee.

A very rough calculation multiplying 50 calories a day over the course of one year saves approximately 5 pounds' worth of calories, assuming all other variables remain unchanged. While that may not seem like much, estimates indicate that adults tend to gain a pound or two each year through middle age[7]. That small weight gain adds up to an additional 10-20 pounds every decade.

All employees attend their preventive checks at the right stage of life, helping to prolong life in a healthier (and less expensive!) way.

Our population is aging. In just 15 years from now, Americans aged 65 and older are projected to make up almost 20% of our population. The prevention, or at least delay in onset, for common age-related illnesses such as heart disease can make a big impact in both quality of life as well as financial expenditures on health care[8].

6 *Charts from the American Time Use Survey*. (2015, October 26). Retrieved from Bureau of Labor Statistics.
7 Strategies to Prevent Weight Gain Among Adults. (2013). Retrieved September 26, 2016, from http://www.ncbi.nlm.nih.gov/pubmed/23638485
8 https://www.cdc.gov/pcd/issues/2012/12_0151.htm

Employee spaces and workdays are designed in a way that gets people to reduce the time they spend sitting and increase the time they spend walking or standing.

The risks of a sedentary lifestyle (from diabetes to heart disease to various forms of cancer) are well documented[9], but the good news is that a recent study has shown that by replacing even as little as 2 minutes of sitting each hour with walking, people lowered their chances of premature death by 33% compared to people just sitting.[10]

How far off are we from this world?

First, we have to understand where employers are today. To do so, our team interviewed HR leaders from 17 companies to gauge current efforts and see where employers are spending their time and money. Then, the companies convened in San Francisco for the **Irrationally Healthy Conference** to share with each other what they are doing and to learn new behavioral economics techniques that they can apply to make real progress toward improving employee health.

Evelyn Gosnell, Lead Behavioral Researcher at Irrational Labs and Irrationally Healthy speaker

Companies that participated:

Amgen
Activision Blizzard
Centene
Eli Lilly
Ebay
Google
Intuit
Kroger
P&G
Salesforce
Sutter Health
T-mobile
Target
Time Warner
University of Michigan
Williams-Sonoma
Zappos

9 Physical Activity and Health. (2015). Retrieved September 26, 2016, from http://www.cdc.gov/physicalactivity/basics/pa-health/index.htm

10 Beddhu, S., Wei, G., Marcus, R. L., Chonchol, M., & Greene, T. (2015). Light-intensity physical activities and mortality in the united states general population and CKD subpopulation. *Clinical Journal of the American Society of Nephrology*: CJASN, 10(7), 1145-1153. doi:10.2215/CJN.08410814

WHAT WE LEARNED

These results are from the interviews with the 17 large employers who attended Irrationally Healthy.

Employers have a desire to help.

On average, the companies who attended Irrationally Healthy rated their desire to improve employee health an 88 out of 100 (with 1 being 'not at all' and 100 being 'very much'). Many of them are thinking broadly about health measures, from biometric results to preventive care. **And they're putting money behind it:** all of the companies are using some sort of financial incentives to drive health outcomes.

Top priorities for employee health:

This word cloud was compiled based on the most frequently mentioned words in response to the question, "What are your top 3 priority areas in relation to employee health?" The size of the words represents the proportional frequency with which each word was mentioned.

Definition of success in health initiatives:

After participants answered the question about their top priorities, we asked them to define success for each area. The size of the words represents the proportional frequency with which each word was mentioned.

Furthermore, **employers are not confident** that their health initiatives are successful: they scored an average of 51 out of 100 (with 1 being 'not at all' and 100 being 'very much'). To be fair, it is hard work – employers find it quite challenging to increase employee health and wellness outcomes, scoring a 74 out of 100 (with 1 being 'not at all challenging' and 100 being 'very challenging').

"I don't think that we've really put a huge amount of science behind what we've done."

- Attendee from Irrationally Healthy

"The way we have wellness programs designed right now needs to be blown up and something new needs to be put in its place, but nobody knows what that is."

- Attendee from Irrationally Healthy

FUN FACTS

16
Maximum number of plans that employees have to choose from

4
Average number of medical plans that employees have to choose from

High variance in wellness program participation rates

– some have over 90% participation and some have 0%

Only 2 companies

have run controlled experiments

More than 70% companies have:

- **Provided education on healthy eating & nutrition.**
- **Provided a financial incentive for completing an HRA.**
- **Provided reimbursements for fitness activities.**

FOUR COMMON EMPLOYER MISTAKES

1 Relying on an information strategy

A widespread misconception is that awareness and education alone are sufficient to change behavior. Many company health initiatives are based around this premise. In fact, among employers participating in the Irrationally Healthy Conference, the most common tactics implemented to improve employee health were information strategies. For example, over three quarters of companies reported providing education or training on healthy eating and nutrition.

Recent mandates requiring restaurants to post calorie counts on menus illustrate the inadequacy of information strategies for impacting health outcomes. It is assumed that when people know what they are eating, they will eat less, or at least eat with their health in mind. However, with the exception of certain subgroups, **calorie labeling results in little reduction in the number of calories diners consume.**[11] Information is important to help people develop intention around a behavior. But it is also critical to remove barriers and increase incentives in order to close the action-intention gap.

11 Cantor, J., Torres, A., Abrams, C., & Elbel, B. (2015). Five Years Later: Awareness Of New York City's Calorie Labels Declined, With No Changes In Calories Purchased. *Health Affairs, 34*(11). doi:10.1377/hlthaff.2015.0623

"Most of [our team's] time is spent on communication, education."

– Attendee from Irrationally Healthy

"We have from what I call the traditional disease management programs, to the different chronic care management programs. But we really focus on educating our associates on why those are so important and how those programs either individually or collectively can really impact their health."

– Attendee from Irrationally Healthy

"We spend an inordinate amount of time just explaining how the system works. We have to communicate so much because, in the average person's daily lives, between taking their kids to soccer or having a doctor's appointment, the information gets lost. My effort to communicate to them is just noise and then they pay less attention. Then I'm spending more time creating more noise and screaming louder to get them to pay attention."

– Attendee from Irrationally Healthy

"Sadly, we see that often companies rely too much on information as a strategy to behavioral change, despite the fact that presenting information alone has rarely produced any behavioral change in the history of mankind."

– Dan Ariely, James B. Duke Professor of Psychology and Behavioral Economics at Duke University and speaker at Irrationally Healthy

2 Overlooking quick win, low cost interventions

Most companies' efforts center around benefits/programs. While there isn't necessarily anything wrong with this strategy, we believe there is a lost opportunity to use proven low-cost "nudges" from behavioral economics.

Part of this is an awareness problem. Before the Irrationally Healthy event, we asked HR leaders about their company's behavioral economics knowledge on a scale of 1 (not at all) to 100 (a lot). 67% of them scored a 50 or lower. These are large companies with significant resources allocated to health and wellness, and many of them are considered to be leaders in this space.

Over-solving for the average member, under-serving those in need 3

Another common misstep in employer health care is not differentiating programs according to how different groups of members need and use health care. In our survey, half of respondents reported not having a key population of highest concern or interest. This is despite general awareness that in a typical employer population, over 80% of spending is driven by 20% of members.[12] Many of today's health care programs target members without enough attention to this stratification of health status, risk and needs. This results in over-solving for the average employee, which results in very low program engagement rates, and in under-serving the high risk, high needs members that need the most support and incur the highest costs.

Over 80% of spending is driven by 20% of members

12 Claxton, Kamal, Cox, and Sroczynski, "How health spending patterns vary by demographics in the U.S.". Peterson-Kaiser Health System Tracker, 8/18/16. Accessed online 9/5/16: http://www.healthsystemtracker.org/2016/08/how-health-spending-patterns-vary-by-demographics-in-the-u-s/

Telephonic care management is a prime example. In most programs that focus on specific health conditions, two members get the same initial engagement phone call despite having very different needs. Take diabetes, for example: someone with well-managed diabetes and someone with uncontrolled diabetes (and frequent ER use as a result) aren't so hard for today's analytics to tell apart, but they often get the same phone call. **That's over-solving and under-serving at the same time: because the service is widely applied and most targeted members don't need it, non-engagement is the norm.** To make matters worse, those members who actually do need the program's support (and who are most likely to engage) tend to require customized outreach, which they don't get under current 'one size fits all' programs.

Key here is that health care programs can only be effective if members use them, and that members are more likely to use programs that accurately reflect their needs. Unfortunately, the status quo for employers is very low engagement rates from health plans and other vendor services. Employers can take steps and push their vendors for program tweaks to better target and engage members most likely to be at risk and thus most likely to benefit from programs. For example:

- *Encouraging primary care relationships:* employers can offer enhanced benefits that are likely to appeal to high risk members (e.g. reduced or waived medication copays) if members pre-identify a primary care provider.

- *Emergency room follow-up:* many health plans wait until a member has used the emergency room up to ten times before reaching out; employers can request a lower threshold as well as standards for timeliness of outreach.

- *More nuanced care management targeting*: for better engagement and impact, leading programs are increasingly focusing on the highest risk subset of a population.

A growing base of research and experience suggests that increased engagement rates and return (both financially and in terms of health and wellness) can be had by better targeting and tailoring programs to address the needs of those at the high end of the cost and needs spectrum.[13] Targeted approaches that focus on improving care and health for these patients have shown cost savings of up to 15-20% with no reductions in quality.[14]

These successes demonstrate the importance of better program design for this population. Due to their high needs and health challenges, these members make the majority of the choices in any health care population. It follows that the choice architecture that they encounter in health care programs should be tailored to reflect their needs and to nudge towards decisions that are consistent with good health and efficient use of health care.

Wellness and health coaching is another category of programs that often over-solve and under-serve.

High needs members have serious, complicated disease burdens and other challenges that require behavior change coaching and better than average support from primary care providers.[15] For short-term health stability and long-term wellness, these members need to be engaged in contexts that facilitate lifestyle change and sustainable self-care for maintenance and improvement of health. **Drawing on the importance of social norms in decision making, successful programs have engaged members through relationships with health care providers that they already know and trust.** An especially effective example is specialized care management and coaching that is given by providers to the high risk, high cost members already in their care. Given high average baseline costs, investments in these types of models can produce significant savings among high risk, high cost members. Building provider partnerships as a general health care program strategy is addressed in more detail later in this report.

13 Wilson, Troy, and Jones, "High Cost Claimants: Private vs. Public Sector Approaches". American Health Policy Institute 2016. Accessed online 9/5/16: http://www.americanhealthpolicy.org/Content/documents/resources/High_Cost_Claimants.pdf

14 Milstein and Gilbertson, "American Medical Home Runs". Health Affairs September/October 2009 vol. 28 no. 5 1317-1326. Accessed online 9/5/16: http://content.healthaffairs.org/content/28/5/1317.full

15 Anderson, G, "Chronic Care: Making the Case for Ongoing Care". Robert Wood Johnson Foundation, 2010. Accessed online 9/5/16: http://www.rwjf.org/en/library/research/2010/01/chronic-care.html

Overall, attention to the risk of over-solving and under-serving is crucial for employers to get the best value out of health care programs and to provide the best support to their members. By incorporating choice architecture and other behavioral insights as discussed in this report, employers can better target and optimize their programs and strategies to encourage more effective and efficient health care for all members, and especially for those most linked to the majority of plan costs.

4 Designing financial incentives poorly

100% of companies in attendance use financial incentives in one way or another, many of them having significant spending in this category. Most frequently, this takes the form of discounts on premiums. Unfortunately, based on research, this type of design is not the most psychologically motivating. See our special section allocated to Incentive Design.

"We use financial incentives. The bogey for me is … what's the threshold before it becomes meaningful? We use them for taking biometric screens; we use them to incentivize doing preventive care appointments, and also engaging in wellness activities. But I don't think that the dollars are meaningful enough to drive behavior change. I don't know if that's really the right approach. Again, I don't feel like it's working. We get the same 7 people or whatever percent of people that just do it every year and take 'where's my 100 dollars' approach. Everyone else isn't really… we're not motivating them to do anything different."

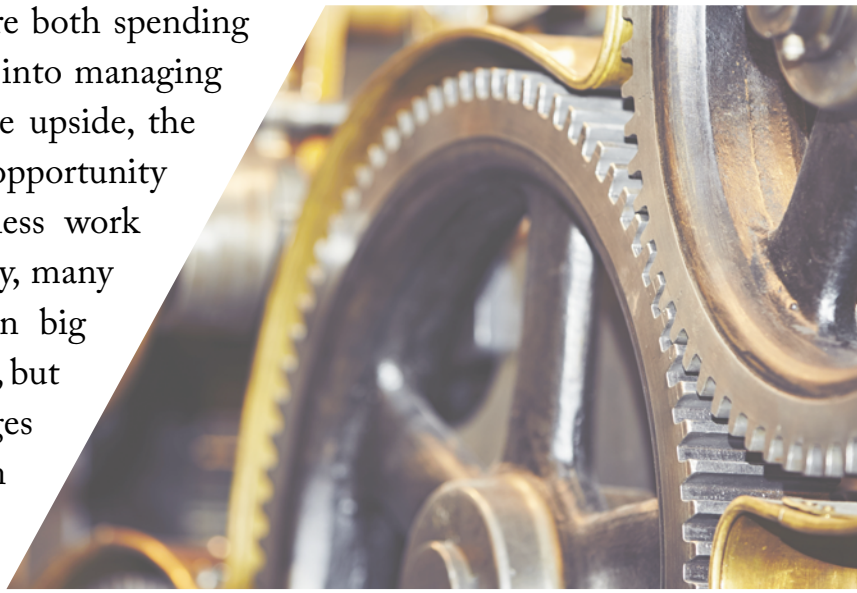
- Attendee from Irrationally Healthy

"We have a large number of people participating, but it's blowing our costs out of the water with regards to incentives. And we're not seeing the return on the benefits side yet. So we're trying to figure out if there are other ways to have a similar type of program that's not entirely focused on incentives; we're just looking for a different way, honestly, so that we're not spending hundreds of thousands of dollars."

– Attendee from Irrationally Healthy

CHANGE CAN HAPPEN (WITH LESS WORK AND LESS MONEY!)

Overall, it's clear that many companies are both spending a lot of money and putting a lot of work into managing wellness programs and incentives. On the upside, the opportunity here is that they have an opportunity to increase health outcomes by doing less work and spending less money. How? Currently, many companies spend significant amounts on big initiatives and programs to improve health, but haven't necessarily tried the small changes that are astronomically cheaper and can move the needle when implemented correctly. This is the focus of this report.



BARRIERS TO OVERCOME

Our interviews identified a number of barriers to change that would need to be overcome in order to be successful. These barriers include:

Lack of confidence from leadership that the tactic will yield results

Complex approval processes

Lack of resources

Pro Tip:

Work with your legal/compliance partners. In our experience working with benefits professionals, we sometimes hear an initial reaction of "those ideas sound great and all, but they could never work at *our* company." Work together with legal and compliance to align your efforts. By bringing them into the process, they can become your advocates and help you figure out how to launch the changes you want to make.

DESIGNING FOR HEALTH

In this section, we present some of the ways employers can use principles from behavioral science to design workplaces that encourage employees to be their healthiest selves. How can companies make proven tweaks to their programs in order to increase effectiveness?

Along with these suggestions, we have also highlighted specific examples of how they have been applied at other companies, in the hopes that these case studies can inspire teams to try new solutions or expand upon their existing efforts.

"Designing for Health" includes:

1.  **Workplace & Program Design**
2.  **Incentive Design**
3.  **Communications Design**
4.  **Provider Partnership and Relationship Design**

How to use this section

- Each section contains a key Behavioral Insight from psychology or behavioral economics.
- After the explanation of the Behavioral Insight, we share ways to apply this Behavioral Insight in 3 main categories: healthy eating, exercise, and preventive health care.
- Read these suggestions below (over 50 ideas) and **circle the ones that feel most feasible to your company**.

WORKPLACE & PROGRAM DESIGN

If you're reading this, you're likely a choice architect.

Anyone who has the power to influence the context in which people make decisions is a choice architect[16], whether they are aware of their role or not. Choice architectures can be built by companies wanting to encourage the sales of specific items, policymakers wanting to encourage people to follow laws, or city planners wanting to control the flow of a crowd or avoid littering.

While it is helpful to have a good understanding of how people make decisions and why they behave the way they do, not all choice architects are behavioral scientists. In fact, most of them are managers, HR representatives, product designers, policy makers and so on.

A choice architect is anyone who designs products, processes and services that people interact with, frames the options people choose from or otherwise shapes the environment that influences our choices.

When we start thinking about the power employers have over the environment within which their employees make decisions in a regular day, we may notice that many behaviors happen very automatically. For example, if a water cooler is visible and close to employees' work stations, they drink more water than if it was just slightly further away.[17] We may also notice that although we, as employers, are in charge of designing the powerful context within which employees make decisions, we may not have considered the implications of our decisions on employee behavior. Because there are so many small decisions to make every day, the details may not seem important.

16 Thaler, R. H., & Sunstein, C. R. (2008). *Nudge*.

17 Engell, D., Kramer, M., Malafi, T., Salomon, M., & Lesher, L. (1996). Effects of effort and social modeling on drinking in humans. Appetite, 26, 129–138. doi:10.1006/appe.1996.0011

Yet, behavioral scientists have found that even very small changes can have huge effects on how people behave over time. These minor changes to the choice architecture that are easy to avoid, do not forbid any options, and do not significantly alter a person's economical incentives, are referred to as "nudges."

Nudges allow us to design an environment that guides individuals toward better choices without being coercive.

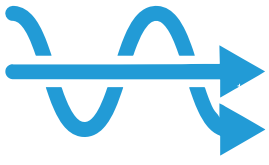
As powerful choice architects, employers are responsible for carefully and thoughtfully designing the workplace environment such that it encourages employees to be their healthiest selves.

Now that we understand our role and power as choice architects, let's look at the Behavioral Insights that inform how we should design environments. In this first section, the insights all fall under the category of making the healthy choice the easiest choice.

Make Healthy Choices Easy, and Unhealthy Choices Difficult

Making a decision and taking action requires a lot of effort and energy. If there is any way we can avoid expending the extra energy, we usually do so: We choose the Path of Least Resistance.

The Path of Least Resistance can be defined as the behavior that is most easily done in a given environment.



Obstacles create friction, and the Path of Least Resistance is the route with the smallest amount of friction.

Behavioral Insight

FRICTION

Any Additional Step Creates Friction

The more top of mind and accessible a certain action is to us, the more likely we are to choose that behavior.

Availability is especially important for influencing health outcomes, since behaviors such as exercising and healthy eating often need to be consistently repeated over time. Availability can be geographic (e.g., how far the gym is), temporal (e.g., its operating hours), and visual (e.g., how prominent signs are for the gym). Therefore, even small design changes around availability, like the layout of the salad bar, can wield an outsized effect on employee health in the long run.

9 Proven Ways to Remove Friction to Healthy Choices

1 Invest in an on-site cafeteria

It goes without saying that a baseline requirement to nudging healthier eating is the availability of healthy food. This is much easier to do if you have a cafeteria on-site. While this is a more expensive investment compared to some of our other recommendations, it opens a **major opportunity** for you to implement all kinds of health nudges. For a variety of reasons, food choices have a stronger impact on weight than exercise has, so we believe this investment is worthwhile. Even if you outsource the cafeteria management to a vendor, you can include requirements about the setup in your contract.

2 Healthy foods should be visible and easy to grab

Sequence and accessibility matter. Food options that are displayed first and that are the easiest to access are more likely to be selected. Making a food slightly more difficult to reach (by varying its proximity by about 10 inches) or changing the serving utensil (for example to a smaller spoon or tongs) reduces intake in the range of 8-16%.[18]

Some ways to make healthy food more accessible to employees include:

- Design the layout of the cafeteria to have the healthiest option shown first (closest to the main pathway/entryway).
- Present the healthiest items first at the salad bar.
- Research by Brian Wansink found that putting fruit in an appealing bowl and well-lit area increases fruit consumption by 103%.[19]
- The easiest to reach/most prominently displayed dressing at the salad bar should be a low-calorie dressing or oil and vinegar.
- Set trays and plates up next to each other in the main pathway by the entrance. Just as shoppers are less likely to add healthy items as their basket fills up, diners are less likely to add healthy sides as their plates fill up.[20]
- Water should be available in more locations than sugar-sweetened beverages such as soda. For example, if there are coolers with bottled drinks, there should be more water than soda.
- Have a grab-and-go section near the register in the cafeteria with only healthy items such as fruit and salads.
- Have a fast-pass check register in the cafeteria for people buying healthy items.

18 P. Rozin, S. Scott, M. Dingley, J. K. Urbanek, H. Jiang, and M. Kaltenbach, (2011)."Nudge to nobesity I: Minor changes in accessibility decrease food intake," *Judgment and Decision Making, 6*(4), 323–332.

19 Wansink, B. (2004). Environmental Factors That Increase The Food Intake And Consumption Volume Of Unknowing Consumers*. *Annu. Rev. Nutr. Annual Review of Nutrition, 24*(1), 455-479. doi:10.1146/annurev.nutr.24.012003.132140

20 Just, D. R., & Wansink, B. (2009). Smarter lunchrooms: Using behavioral economics to improve meal selection. Choices, 24(3).

3 Unhealthy snacks and condiments should be out of sight, for example hidden in opaque containers or in locations difficult to reach

Making a food slightly more difficult to reach modestly but reliably reduces intake, in the range of 8-16%.[21] In a study looking at consumption of ice cream, Brian Wansink found that adding an opaque cover on freezers creates a small barrier and decreases the likelihood that ice cream will be selected. When he implemented this change he found that ice cream sales went down.[22]

Other ways of making unhealthy foods less visible include:

- Keep sugar and cream in a cupboard on the other side of the room from the coffee machine.
- Keep candy, pastries, cookies and other sweets out of the break room as much as possible. Replace them with healthy snacks. In one study, people were either exposed to a shelf with 75% of the assortment being healthy snacks or 25% being healthy snacks. The first group was 2.9 times more likely to select a healthy snack.[23]
- At the salad bar, the unhealthiest items, e.g. cheese or croutons, should be displayed last.
- Unhealthy items should have serving utensils that are smaller and easier to control, such as spoons or tongs.

Applying the Insight:

Google has taken insights from behavioral economics out of the labs and into their cafeterias. In doing so, they found that moving candies to opaque dispensers reduced employees' caloric intake from sweets by 9% in just a week. They also found that placing water at eye level increased water intake by 45% and reduced caloric intake from drinks by 7%.

21 P. Rozin, S. Scott, M. Dingley, J. K. Urbanek, H. Jiang, and M. Kaltenbach, (2011)."Nudge to nobesity I: Minor changes in accessibility decrease food intake," *Judgment and Decision Making, 6*(4), 323–332.

22 Wansink (2004) Environmental factors that increase the food intake and consumption volume of unknowing consumers, *Annual Review of Nutrition, Volume 24*, 455-479)

23 Van Kleef, E., Otten, K., & van Trijp, H. C. M. (2012). Healthy snacks at the checkout counter: a lab and field study on the impact of shelf arrangement and assortment structure on consumer choices. BMC Public Health, 12(1), 1072. doi:10.1186/1471-2458-12-1072

- Avoid keeping unhealthy drinks at eye level in cafeteria refrigerators. We are three times more likely to choose the first thing we see than the fifth. So you've got a better chance of getting employees to select bottled water if you keep the water at the front of the fridge at eye level. Brian Wansink's research uncovered that 60% of the products that we choose when shopping in a supermarket are within 12 inches of eye level.[24]
- Avoid selling candies, cookies, or pastries at the checkout register.

How did we pick these? These nudges are meant to be low(er) cost and simple to implement. Many of them are a one-and-done change, not a long-term program you have to manage.

4 Have water fountains or water coolers within a one-minute walk of any work area

Making water highly available makes people drink more water. Research has found people drink more water while eating if the water pitcher is on the table versus 20 or 40 feet away.[25] Having water fountains or coolers close to workstations makes employees more likely to refill their bottles or glasses.

5 If your company has a campus, set up clearly marked walking paths to encourage movement during the day

This is particularly important because we typically don't think of walking from building to building as exercise, and when we don't think of an activity as exercise, we are less likely to compensate in other unhealthy ways afterwards.[26]

24 Wansink, B. (2006) Mindless Eating

25 Engell, D., Kramer, M., Malafi, T., Salomon, M., & Lesher, L. (1996). Effects of effort and social modeling on drinking in humans. Appetite, 26, 129–138. doi:10.1006/appe.1996.0011

26 Werle, C., Wansink, B. and Payne, C. (2014). Is it fun or exercise? The framing of physical activity biases subsequent snacking. *Marketing Letters.* 10.1007/s11002-014-9301-6

6 Have a fitness center on-site or near the office that employees can use during the day

In addition, the opening hours of the gym should be broad and coincide with when employees can take time away from their desks.

Applying the Insight:

The on-site gym at Aetna corporate not only offers a towel service, but also includes a 12-hour laundry service. After working out, employees leave their dirty gym clothes. The clothes are then cleaned and put back in the locker within 12 hours. This is a brilliant way to remove barriers to attending the gym.

Preventive Health care

7 Have a clinic on-site or near the office that employees can use during the day

Because the clinic is nearby, it is easier to stop by for an appointment during a busy day at work. In addition, the clinic should strive to always have available drop-in appointments.

8 Put smoking areas in an inconvenient location that takes at least 5 minutes to walk to, and does not have any seating

Making smoking areas harder to access and less comfortable places a barrier to leaving the office for a quick cigarette as this requires more time and effort.

Offer coaching 9

Several of the companies that attended Irrationally Healthy Conference are using Vida, a health coaching program, and Lyra, a tool that helps employees connect with therapists and mental health professionals. While not inexpensive, coaching can be a highly effective way of helping an employee take all the steps to get healthier. In essence, coaching can help reduce a major barrier to action. Motivational interviewing-based health coaching has consistently been demonstrated as causally and independently associated with positive behavioral outcomes.[27]

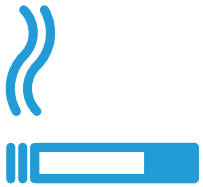
"If we believe that our employees are perfectly rational human beings, then our only responsibility is to provide them with information. Because after all, if they were perfectly rational, they would be able to utilize this information and always, always, always make the perfect, rational decision. If, however, we realize that employees are not perfectly rational, and in fact they might be myopic, emotional, easily confused and busy, then our obligation changes. And we need to take many more steps, hold people by the hand, and help them make decisions that are better for them."

– Dan Ariely, James B. Duke Professor of Psychology and Behavioral Economics at Duke University and speaker at Irrationally Healthy

27 Butterworth, S. W., Linden, A., & McClay, W. (2007). Health Coaching as an Intervention in Health Management Programs. Disease Management & Health Outcomes, 15(5), 299–307. http://doi.org/10.2165/11536850-000000000-00000

Some examples of how coaching can be effective:

- **Smoking cessation.** The strongest evidence for the effectiveness of health coaching is in smoking cessation. In a review article, authors identified 21 trials with more than 7000 participants where individual counseling for smoking cessation was included. In the study, counseling was found to be effective. In the study, the researchers also found that intensive counseling was no more effective than brief counseling, supporting a more cost-effective intervention model.[28]



- **Physical activity.** A number of studies show that health coaching can promote physical activity. For example, a randomized controlled trial by Vale and colleagues showed that individuals who received phone and mailing-based coaching increased physical activity compared to a control group. The researchers concluded that coaching has potential effectiveness in the whole area of chronic disease management.[29] Other studies, for example on diabetes[30] and hypertension[31] support this conclusion.

- **Healthy eating.** The research by Vale and colleagues showed that not only did coaching increase physical activity, it also helped participants adhere to a healthy diet. The study showed that participants who received coaching reduced their total calorie intake, had lower total and saturated fat intake, and reduced cholesterol intake compared to the control group. Another study found that nearly 50% of participants in a worksite coaching program reported increased fiber intake and close to one-third reported less fat intake at the end of a coaching program.[32]

28 Lancaster, T., & Stead, L. F. (2005). Individual behavioural counselling for smoking cessation. *Cochrane Database of Systematic Reviews,* (2), CD001292. http://doi.org/10.1002/14651858.CD001292.pub2

29 Vale MJ, Jelinek MV, Best JD, et al. Coaching patients on achieving cardiovascular health (COACH). Arch Intern Med. 2003;163:2775–2783.

30 Knight, K., Bundy, C., Morris, R., Higgs, J., Jameson, R., Unsworth, P., & Jayson, D. (2003). The effects of group motivational interviewing and externalizing conversations for adolescents with type-1 diabetes. *Psychology, Health and Medicine, 8*(2), 149–157. http://doi.org/10.1080/1354850031000087528

31 Ogedegbe G, Chaplin W. Motivational interviewing improves systolic blood pressure in hypertensive African Americans (abstract). Am J Hypertens 2005. Diabetes Educ 2006; 32: 562-70 18: A212

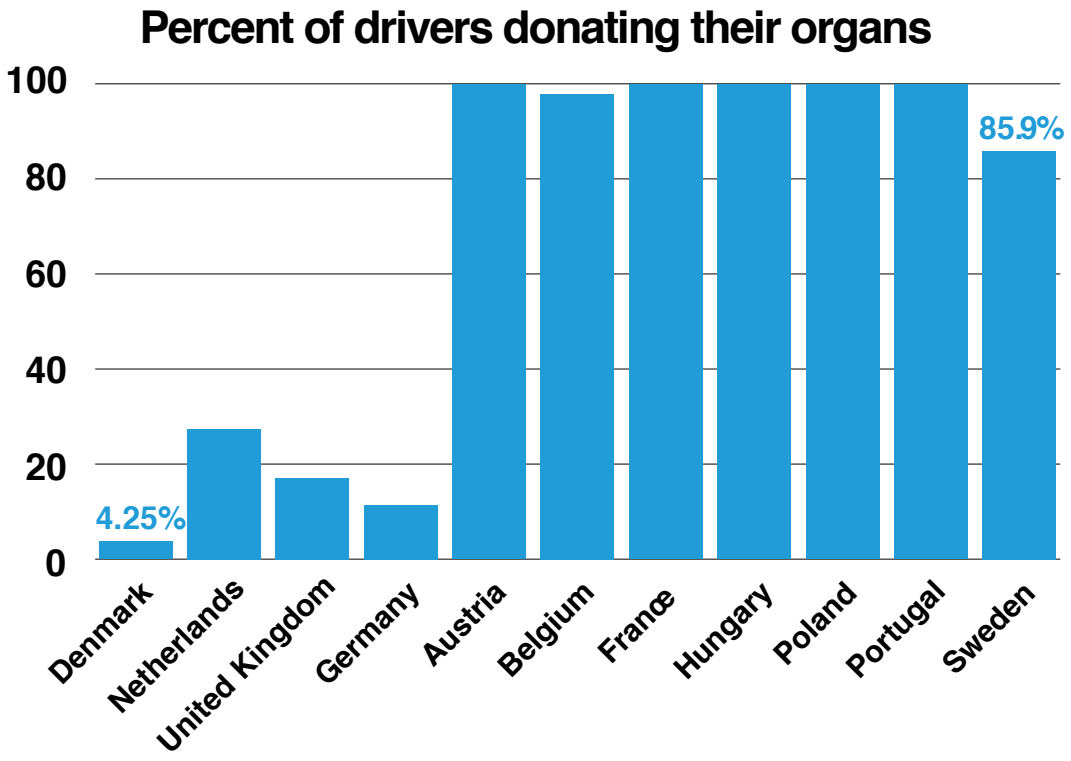
32 Schuessler L, Beyer J, Mischler E. Successful weight management in a corporate environment. Dis Manag. 2007; 10:S13–S17

Behavioral Insight

DEFAULTS

Not making a choice is a choice as well: We stick with the default option we are given

Since 1995, more than 45,000 people in the United States have died waiting for a suitable donor organ. Although about 85% of Americans say that they approve of organ donations, the number of people who sign up to be donors is drastically lower. However, this is not true in every country. While they have similar approval rates of donations, Denmark has a donor rate of only 4.25%, whereas Sweden has 85.9%.[33] Why is it that these otherwise similar countries have such different rates of people signing up to donate?



The answer lies in a concept behavioral economists call "defaults." Defaults are choices that have already been preselected, making it necessary for a person to take active steps to avoid it if they want to choose another option. They can be thought of as the settings that come out of the box. Individuals are more likely to select the default option than to seek out, research and actively choose an alternative.

33 Johnson, E. J., & Goldstein, D. (2003). Do Defaults Save Lives? *Science, 302*, 1338–1339. doi:10.1126/science.1091721

In the case of organ donations, the difference between the countries that have very high rates of consent to donate and those with very low ones can be traced back to something as simple as how a single item on a form was phrased. Countries where the form will ask you to check a box if you want to register as a donor, or opting in, will have much lower rates of consent than countries that ask you to check a box if you don't want to register. The effect of defaults on organ donation has also been found in the lab. In an online experiment conducted by Eric Johnson and Dan Goldstein, they found that donation rates were about twice as high when opting out than when opting in.[34]

This research, as well as other studies in areas such as pension plans[35] demonstrates that many people, especially when faced with difficult decisions about the future, fail to actively choose and are extremely likely to stick to the default option. We know that defaults are a powerful guide of behavior, yet it is often not consciously considered what the defaults are when we design products, spaces and contracts that necessitate a decision.

7 Powerful Ways to Use Defaults and Active Choice to Improve Employee Health

1 Have on-site cafeterias offer entrées with a healthy side dish or a salad.

This could be sold as a combo or offered proactively by the cafeteria server. Having a starch as a side dish must be requested. If an entrée is automatically offered with vegetables, we're more likely to stick with it than to ask for a substitution. This does not take away the option of having a starch if people want it. It simply makes the barrier to doing so slightly higher.

34 Johnson, E. J., & Goldstein, D. (2003). Do Defaults Save Lives? *Science, 302*, 1338–1339. doi:10.1126/science.1091721
35 Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2006). The Importance of Default Options for Retirement Saving Outcomes: Evidence from the United States. *National Bureau of Economic Research Working Paper Series.*

Applying the Insight:

Default choices affect every decision we make, including what we eat. While we may believe that we choose what we feel like or should be eating, the research on defaults tells a different story. In a study at the sandwich chain Subway, people who received a menu highlighting lower-calorie sandwiches were 48% more likely to choose a lower-calorie sandwich than those given a mixed menu that highlighted both low- and high-calorie sandwich options.[36]

2 Whenever possible, sign employees up to automatically become members of the gym

When new employees start their jobs, it is common for companies to require them to go to the gym and sign up. With all the stress of figuring out the new job, this can represent a major barrier to signing up. Instead, have new employees automatically become members of the gym, and give them a member card on their first day.

If there are limitations (e.g., legal) that make it difficult to default employees, use active choice 3

"Active choice" is the term used when either option (e.g., signing up for the gym or not signing up for the gym) requires action. Level the playing field by designing the gym enrollment form such that both options require an equal action. For example, create a form for all new employees to fill out that shows two boxes – one that says "I wish to enroll" and another that says "I do not wish to enroll."

36 Wisdom, J., Downs, J. S., & Loewenstein, G. (2010). Promoting healthy choices: Information versus convenience.

4 Set walking meetings as the default location for meetings in the company's calendar software

Having your meeting invites show "walking meeting" as an option is both a suggestion/reminder, and it is a way of normalizing this behavior as something that is commonly done at your company. The added benefit of doing so is that walking meetings have been shown to improve mood and lead to better communication, employee engagement, as well as creative problem solving.[37]

5 Consider having a conference room with no chairs

This would result in "standing meetings." While this is not as desirable as walking meetings, it is preferable to sitting meetings. You may also get the added benefit of shorter meetings!

6 Have employees opt out if they don't want to get their shots and check-ups

Research shows that having to opt out rather than opting in to treatments increases uptake dramatically.[38] [39] Therefore, contact each employee with a specific appointment time and place to receive their important vaccinations and check-ups, including an easy phone number or email response to cancel or reschedule.

7 If you can't use defaults in preventive care, use active choice

If not getting a shot does not require any action to be taken, we are likely to go with the easy way out and avoid it. When an action needs to be taken regardless, we are much more likely to opt for getting the shot. Therefore, active choice can be used if you don't want to start out quite as strong as opting all employees into getting their shots or check-ups, or if there are other legal or financial barriers to doing so.

American Economic Journal: Applied Economics, 2(2), 164–178. doi:10.1257/app.2.2.164

37 7 powerful reasons to take your next meeting for a walk. Retrieved from: http://www.inc.com/peter-economy/7-powerful-reasons-to-take-your-next-meeting-for-a-walk.html

38 Chapman, G. B., Li, M., Colby, H., & Yoon, H. (2010). Opting in vs opting out of influenza vaccination. JAMA, 304(1), 43–4. doi:10.1001/jama.2010.892

39 Johnson, E. J., & Goldstein, D. (2003). Do defaults save lives?". *Science, 302,* 1338–1339.

Behavioral Insight

CHOICE OVERLOAD

When there are too many choices, we avoid making a decision

Sometimes when there are just too many options to choose from, or if the choice is very complex, we end up choosing nothing. A broad array of research shows that having to make a choice between many options often causes drop-off; users avoid making a decision altogether. For example, a famous study by Iyengar and Lepper demonstrated the concept that too much choice isn't always better. On two days, shoppers in a supermarket had the chance to sample either 24 or 6 types of jam. The large display attracted more interest than the small one. But when the time came to purchase, people who saw the large display were one tenth as likely to buy as people who saw the small display. [40]

In the world of savings, researchers have reported that the chance of a worker participating in a savings plan declines as the number of funds available to choose from increases. For example, an employee with 5 funds in his or her plan has a predicted participation rate of 72%, while one with 35 funds in the plan has a predicted participation rate of 67.5%. On average, each additional 10 investment choices cuts participation rates by 2%.[41]

2 High Impact Ways to Apply Choice Overload to Improve Employee Health

1 If you offer a broad range of programs, give people a starting point

Many companies offer a broad range of health and wellness offerings and see this as a plus. While some people may know which one is the best fit for them, some may not. Give employees a recommended starting point as appropriate.

40 Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: can one desire too much of a good thing? *Journal of Personality and Social Psychology, 79*(6), 995–1006. doi:10.1037/0022-3514.79.6.995

41 Iyengar, S. S., & Kamenica, E. (2010). Choice proliferation, simplicity seeking, and asset allocation. Journal of Public Economics. doi:10.1016/j.jpubeco.2010.03.006

2 Ensure employee health plans and insurance coverage are easy to understand, and narrow the range of options

Health plans are not known for being easy to understand, and we're bad at it. One study showed that only 14% of subjects were able to correctly answer basic questions about insurance such as deductibles and coinsurance.[42]

On top of that, each plan can have different features and coverage, and because we don't know what might happen to our health in the future, it can be hard to choose the one that is right for us. More choice is not necessarily better – in one study, even giving people a marginal amount of additional choices resulted in 80% of them picking suboptimally. Furthermore, people were not aware that they were making poor choices. However, setting up smart defaults and providing calculation aids significantly improved performance.[43]

PRE-COMMITMENT

When we commit to something ahead of time, we are more likely to stick to our goals

The simple act of agreeing to do something actually makes you much more likely to do it. This idea comes from Robert Cialdini's work on influence, and it's called a commitment device.[44] A commitment device is a choice that an individual makes in the present which restricts his or her own choices in the future, often as a means of controlling future impulsive behavior and limiting choices to those that reflect long-term goals.

42 Loewenstein, G., Friedman, J. Y., McGill, B., Ahmad, S., Linck, S., Sinkula, S., . . . Volpp, K. G. (2013). Consumers' misunderstanding of health insurance. *Journal of Health Economics, 32*(5), 850. doi:10.1016/j.jhealeco.2013.04.004

43 Johnson, E. J., Hassin, R., Baker, T., Bajger, A. T., & Treuer, G. (2013). Can consumers make affordable care affordable? the value of choice architecture. *PLoS One, 8*(12), e81521. doi:http://dx.doi.org/10.1371/journal.pone.0081521

44 Cialdini, R. (1984). *Influence: The Psychology of Persuasion,* New York: Quill

Research has shown that commitment devices have helped people get healthier in a number of different ways, such as by losing weight, improving their diets, exercising more, and quitting smoking. Part of understanding why commitment devices work is recognizing a concept behavioral economists call hyperbolic discounting, which means that we overvalue the present in comparison to the future. When we haven't committed to a future behavior, we have a tendency to be drawn towards choosing something that feels or tastes good without thinking about our future health or dietary goals.

Because we are easily tempted by what feels good in the present, it is important to recognize and support the healthy behaviors that we want to encourage in the long term. Commitment devices help us stay the course.

6 Low Cost Ways to Apply Commitment Devices to Improve Employee Health

1 Make sure that the break room has refrigerators and microwaves

Pre-planning what to eat for lunch can circumvent choosing what feels good in the moment. It also makes us more likely to behave in accordance with our goals.

2 Set up a pre-order process for lunch

Research has found that the closer to the time of eating we order our food, the more likely we are to choose high-calorie dishes.[45] Encourage employees to pre-order their lunch, for example by paying for delivery or the whole meal if they order their lunch before 10 AM.

45 VanEpps, E. M., Downs, J. S., & Loewenstein, G. (2016). Advance ordering for healthier eating? field experiments on the relationship between the meal Order–Consumption time delay and meal content. *Journal of Marketing Research, 53*(3), 369-380. doi:10.1509/jmr.14.0234

Post the menus of at least 3 healthy restaurants that are near the office in a common office space 3

This makes it easier to plan and order ahead of time.

Reward those who sign up for classes ahead of time 4

Once people have committed to attending a class (by signing up), it makes it harder for them to create a reason for themselves not to attend once the time actually comes. Make sure those who sign up for classes ahead of time and follow through with the commitment are rewarded.

5 When appointments are booked in person, have the *patient* write down the date and time of the appointment rather than the nurse or receptionist

When employees book the appointment ahead of time, it makes them commit to attending them. This effect is further enhanced when the patient documents their commitment.

When appointments are booked over the phone, ask for a verbal commitment 6

Verbal prompts to encourage commitment can also be powerful. The researchers cite the example of restaurateur Gordon Sinclair who added two words that his receptionists used when taking customer bookings over the telephone. Instead of the usual 'Please call us if you need to change or cancel your booking' before hanging up, Sinclair asked staff to say 'Will you please call us if you need to change or cancel your booking?' and then pause, prompting the customer to make a verbal commitment by answering 'Yes'.[46]

46 Martin, S. J., Bassi, S., & Dunbar-Rees, R. (2012). Commitments, norms and custard creams – a social influence approach to reducing did not attends (DNAs). *Journal of the Royal Society of Medicine, 105*(3), 101–104. http://doi.org/10.1258/jrsm.2011.110250

Make Healthy Choices More Appealing, and Unhealthy Choices More Painful

In addition to reducing any points of friction in order to smooth pathways to certain behaviors, we can also encourage healthy behaviors and discourage unhealthy ones by making the behavior itself seem more or less appealing.

For example, as humans, we are powerfully motivated by social influence in order to determine how to behave. Research suggests that our perception of the "normal" behavior of our peer group, even more than the "true" norm, will often determine our choices and actions. Therefore, healthier choices will seem more acceptable and appealing, and we will be more likely to take part in them, if we see others engaging in the behavior.

Our likelihood to engage in certain behaviors will also change if we perceive them as a gain or a loss. We are more averse to losing something we already have; therefore, minimizing any sense of loss associated with healthy behaviors, while amplifying the sense of loss for unhealthy ones can steer employees to improve their health.

PAIN OF PAYING

Decrease the pain of paying when it comes to healthy behaviors

When you ride a taxi, the salience of what you need to pay is very high as the meter is constantly rising. Apps like Uber and Lyft seem to have understood something that more traditional taxi companies haven't: the act of paying can be painful, and the pain of paying can undermine the pleasure we derive from our purchase. But the pain of paying does not only exist in the domain of transportation.

The saliency of our spending can reduce or exacerbate the pain consumers feel when they pay. For example, it hurts more to pay cash than to pay using credit. Carey Morewedge and his colleagues were interested in the spending habits of people paying with cash and credit. The researchers devised a study where they checked the receipts of people as they left the grocery store. They found that the customers who paid with cash spent significantly less money ($6.65) on average than customers who paid with a credit ($11.45) or debit card ($11.08). Paying with cash hurts, so people refrained from spending it more than the people who swiped their cards.[47] Other studies have found that consumers who pay by credit cards instead of cash give larger tips at restaurants[48] and shop more every time they visit a department store.[49]

The timing of payments is also an important factor in how painful consumers find paying for something. We know that no matter what, people don't like parting with their money. However, if consumers pay after they have consumed the good or service, paying is more painful than if they paid upfront. This is because before we consume we usually think about the benefit we will derive from the purchase, which can blunt the pain of paying.

How to collect payment for benefits

1 If you have a program subsidizing on-site food, only cover the healthy food options

Having to pay for unhealthy snacks is both inconvenient and hurts more if there is a free and healthy option available.

2 Require employees to pay for unhealthy food items with cash

To discourage employees from buying unhealthy items, mark them and require employees to pay for them using cash. Not only is this an inconvenience, paying in cash also hurts more than using a card to pay.

47 Morewedge, C. K., Holtzman, L., & Epley, N. (2007). Unfixed Resources: Perceived Costs, Consumption, and the Accessible Account Effect. *Journal of Consumer Research, 34*(4), 459–467. http://doi.org/10.1086/518540

48 Feinberg, Richard A. (1986). "Credit cards as spending facilitating stimuli: A conditioning interpretation." *Journal of Consumer Research, 13*(3), 348-356.

49 Hirschman, Elizabeth (1979). "Differences in consumer purchase behavior by credit card payment system." *Journal of Consumer Research, 6*, 58-66.

3 If employees need to pay a fee for their gym memberships, automatically deduct it from their payslips at the beginning of the month

When they agree to join the gym and set up the automatic deduction, the pain of paying is reduced since they can more easily forget about it.

4 Strike a balance between making the payment less salient but also reminding employees what their gym memberships are worth

Because we want to reduce the pain of paying, we want to avoid reminding employees how much *they* are paying for it. However, there are a few reasons why it may be a good idea to offer employees a subtle reminder of what the gym memberships are really worth. First, when something is more expensive, we tend to think that its quality is higher.[50] Second, the cost of the membership may be seen as a "penalty" to the company if it's not being used, which can increase discipline.[51]

50 Waber, R., Shiv, B., Carmon, Z., & Ariely, D. (2008). Commercial features of placebo and therapeutic efficacy. *JAMA, 299*(9), 1016–1017. http://doi.org/10.1001/jama.299.9.1016

51 Beshears, J., Choi, J. J., & Madrian, B. C. (2011). Self Control and Liquidity : How to Design a Commitment Contract. *Security*, (grant 9920100031), 1–54. http://doi.org/10.2139/ssrn.1970039

Behavioral Insight

SOCIAL PROOF

We look to other people for cues about how we should behave

In almost every single context during our day, there is a social norm in the background guiding our behavior. It can be as simple as ordering the same thing your friend is having at a restaurant, or it can influence bigger decisions, such as voting for the same political party as our friends and relatives. **Humans are prone to influence by the social information around us, a principle researchers refer to as "social proof."** We are most prone to influence by others when we are uncertain about what the correct decision or behavior is, or if it is something we usually do automatically and that we don't feel strongly about.

Take eating, for example: We are likely to look to others both to gauge how much to eat and which foods are acceptable. There is ample evidence that social norms about eating have a powerful effect on both food choice and amounts consumed. Social norms about eating are perceived standards for what constitutes appropriate consumption, whether that be amounts of foods or specific food choices, for members of a social group.[52]

Social proof can be leveraged to encourage behaviors we want people to do. Simply making people aware of how they compare with others can be an effective way of influencing behavior. A study by Zimmerman (2009)[53] looks at ways behavioral economics can be used to promote physical activity. The author argues that changing people's perceptions about the social norms surrounding an active lifestyle, for example by communicating the average exercise habits of the peers, can encourage people to adopt similar lifestyles. A key finding is that people's preferences for actions are not absolute, but rather relative to some anchor point, and can therefore be influenced by changing the anchor.

Simply making people aware of how they compare with others can be an effective way of influencing behavior

52 Feeney JR, Polivy J, Pliner P, Sullivan MD. Comparing live and remote models in eating conformity research. *Eat Behav.* 2011;12(1):75-77.

53 Zimmerman, F. J. (2009). Using behavioral economics to promote physical activity. *Preventive Medicine, 49*(4), 289–291. doi:10.1016/j.ypmed.2009.07.008

Similarly, you need to be careful to avoid negative social proof: Telling employees that they should do something because most people don't. In one of their campaigns, the Keep America Beautiful (KAB) organization presented viewers with an image of a Native American canoeing in a river littered with industrial and individual waste. Near the end of the commercial the Native American watches as a passing automobile tosses trash into a heavily polluted section on the riverbank. As the camera angle changes to focus back on the man, a tear flows down his face. The commercial ends with the message: "People Start Pollution, People Can Stop It."[54] The problem with this PSA, according to psychologist Robert Cialdini, is that it is presenting the audience with information that suggests littering is common behaviour in which they shouldn't participate. The descriptive component of the commercial (how many people are littering) is inconsistent with what you should be doing (not littering).

4 Easy Ways to Apply Social Proof to Improve Employee Health

1 Use social proof to your advantage when getting new employees to sign up for the gym

As long as over 50% of on-site employees sign up for the gym, you could display the following:

a) **I wish to enroll for the gym.** ***(Most on-site employees choose this option.)***
b) **I do not wish to enroll for the gym.**

Think of other ways to use this to communicate the way majorities behave in other areas of physical fitness (e.g., "Most people have participated in at least 1 company fitness event," etc.).

54 Cialdini, R.B. (2003), "Crafting normative messages to protect the environment", *Current Directions in Psychological Sciences, Vol. 12,* pp. 105-9.

Place the most popular exercise equipment closest to the windows where people walk past the gym 2

A busy fitness center signals that exercising is a social norm at your company.

Applying the Insight:

At Eli Lilly, some managers give employees the choice of having their 1:1 meetings together on the elliptical machine. Not only does this reduce the barrier of finding time to exercise, it also allows leadership to set a positive example and define a social norm.

3 Do not use messaging such as "most people don't get flu shots, which is why you should."

The implication that most people are not engaging in a behavior normalizes not engaging. Another example of messaging that includes negative social proof is: "Get a flu shot to protect those who can't." It signals that most people do not get vaccinated.

Social incentives, such as an "I got my flu shot" sticker can be used to encourage flu shots. 4

The literature shows that social incentives such as peer recognition can be more effective than financial incentives at inducing people to participate in prosocial activities.[55] After people get their flu shot, give them an "I got my flu shot" sticker or mug, similar to the "I voted" stickers given at voting booths. This serves two purposes: 1) it's a social reward for those who get the shot, showing that they are smart about taking care of their health and 2) it's another visual reminder for others to get their shot.[56]

55 Ashraf, N., Bandiera, O., & Jack, B. K. (2014). No margin, no mission? A field experiment on incentives for public service delivery. *Journal of Public Economics, 120,* 1–17. doi:10.1016/j.jpubeco.2014.06.014

56 Gerber, A. S., & Rogers, T. (2009). Descriptive Social Norms and Motivation to Vote: Everybody's Voting and so Should You. *The Journal of Politics, 71*(01), 178. doi:10.1017/S0022381608090117

Behavioral Insight

SOCIAL NETWORKS

Social networks are an important part in affecting health outcomes

Our social networks, including our families, can motivate us and influence our behaviors. This is why adding a social element to healthy behaviors can be so impactful.

For example, in a large, longitudinal study of social network ties, the likelihood of becoming obese increased when an individual's social network included others who were obese, particularly friends, partners, and siblings.[57] Moreover, married partners often demonstrate correspondence in their health behaviors, such as diet, exercise, weight management, smoking, and consumption of alcohol.[58] When people are connected, their adoption and maintenance of health promoting (and health risk) behaviors often are as well.

Therefore, adding a social element to improve the habits and behaviors of one employee has the potential to not only improve the health of that individual, but also creates ripple effects throughout their social networks.

4 Science-Backed Ways to Deploy the Power of Social Networks to Affect Health

Pro Tip:

As a general rule, when possible, include family members in your offerings & communications. They are a key part of employees' lives and can have a significant impact on their health.

57 Christakis, N & Fowler, J (2007) The Spread of Obesity in a Large Social Network over 32 Years. *The New England Journal of Medicine, 357*:370-379 July 26, 2007DOI: 10.1056/NEJMsa066082

58 Franks, M. M., Shields, C. G., Sands, L., Lim, E., Mobley, S., & Boushey, C. J. (2012). I will if you will: Similarity in health behavior change of married partners. *Health Education & Behavior, 39,* 324 –331. doi: 10.1177/1090198111402824

1 Increase the social element of exercise challenges to deepen their power and their impact

Allow people to participate individually, but give them extra perks (points, recognition, opportunity to win prizes) if they come with a few coworkers. Not only do people report enjoying exercise more when they do it with friends, research has also found that for moderate and vigorous exercise, the duration of exercise was shorter when people exercised alone rather than with others.[59]

2 Encourage working out in groups

In a study looking at the effects of working out with a partner, participants were divided into groups and asked to ride an exercise bike. One group rode alone, and the second had a single partner (Note that the partner in this study was actually virtual via Skype). The researchers found that those who had a partner kept going for 87% longer![60]

Applying the Insight:

Aetna runs an innovative program that provides the opportunity for employees anywhere to work with a personal trainer from Aetna's fitness staff through live video conferencing. Not only does this help give employees personal instruction on the technical details of working out, but it also creates increased motivation, accountability, and a sense of social inclusion.

Time Warner's Fit Nation program runs 40+ athletic events from 5Ks to triathlons throughout the year, and targets employees with varying levels of athletic skills. Employees are supported with training to help them prepare for the events. Many of the events include friends and family, which is a wonderful way to expand reach beyond the employee and increase the probability of instilling longer-term habits.

59 Dunton, G. F., Berrigan, D., Ballard-Barbash, R., Graubard, B. I., & Atienza, A. A. (2009). Environmental influences on exercise intensity and duration in a U.S. time use study. *Medicine and Science in Sports and Exercise, 41*(9), 1698.
60 Irwin, B. C., Scorniaenchi, J., Kerr, N. L., Eisenmann, J. C., & Feltz, D. L. (2012). Aerobic exercise is promoted when individual performance affects the group: A test of the kohler motivation gain effect. *Annals of Behavioral Medicine, 44*(2), 151–159. http://doi.org/10.1007/s12160-012-9367-4

Preventive Health care

3 Make rewards dependent on the behavior of a team

When we are accountable to each other, we are more motivated.

Design benefits for the whole family 4

Family health is an important and often overlooked part of employee health. Employees often face the burden of having to use their own sick leave to care for sick children rather than just when they are ill themselves. In order to ensure that the parents have enough sick time, and take it for themselves when needed, employers can benefit from providing family services that act as preventive care for kids as well.[61]

Applying the Insight:

Amgen helps make it easy for breastfeeding mothers who travel to continue to breastfeed. They offer a service called Milk Stork, a service that allows women to pump breast milk and have it overnighted home in a special refrigerated unit.

61 Heymann, S. J., Earle, A., & Egleston, B. (1996). Parental availability for the care of sick children. *Pediatrics, 98*(August 1996), 226–230.

Fitness Trackers: Potential for Impact and Reasons for Concern

Fitness Trackers are broadly used by many companies in their health and wellness strategies. If anything, this trend seems to be growing. The key question is this: do they work? Unfortunately, the answer to that question is not as clear as we'd like it to be. We believe more research is needed on this topic, but for now here is what the existing research shows:

One study showed that fitness trackers increased the number of steps people take.[62]

Almost every participant took a longer route to increase the number of steps they took (91%) and amount of weekly exercise (95%) they did. Most increased their walking speed to reach their Fitbit targets faster (56%). While these stats are good news, the key thing to note with this study is that the participants included only people who already owned fitness trackers.

Another recent study in JAMA showed that people who wore fitness trackers lost LESS weight than people who did not.[63]

This is a robust study that used random assignment, included almost 500 people from ages 18-35, and lasted for a year and a half. However, this study used an outdated fitness tracker, so it may be premature to make broad claims about all fitness trackers.

62 Duus, R., Cooray, M. and Page, N. (2016) Agentic technology: Exploring the influence of Fitbit activity tracker on consumer behavior. American Marketing Science Conference Orlando, USA, May 2016.

63 Jakicic, J. M., Davis, K. K., Rogers, R. J., King, W. C., Marcus, M. D., Helsel, D., . . . Belle, S. H. (2016). Effect of wearable technology combined with a lifestyle intervention on long-term weight loss: The IDEA randomized clinical trial. *JAMA, 316*(11), 1161. doi:10.1001/jama.2016.12858

When fitness trackers do work, it's usually less because of the tracking itself and more because of the behavioral change strategies that are designed around them.[64]

In other words, the fitness tracking technology may not be enough to drive durable change. Consider adding behavioral interventions to your approach.

Many users struggle to make a habit out of using the fitness tracker.

A big issue with wearables is that people stop using them after the initial novelty has worn off. In a 2014 survey of 6223 Americans, researchers found that more than half of individuals who purchased a wearable device stop using it and, of these, one third did so before 6 months had passed.[65] This is another opportunity for applying behavioral science.

While measuring activity can get people to do more, it can also make them enjoy the activity less and do less if it once they stop tracking it.[66]

Since we cannot expect people to use fitness trackers forever (and in fact the evidence holds that usage is short-term), it is not a good long-term strategy to remove the intrinsic motivation people may have to go for a walk, run, hike, etc.

What's the bottom line? In the absence of solid evidence demonstrating the effectiveness of fitness trackers in driving health outcomes, it may not be the best strategy to give them out to your entire employee base, at least not in the absence of accompanying behavioral intervention. We do think, however, that they can be effective as a prize or even a potential loyalty driver to the company due to their high perceived value.

64 Patel, M. S., Asch, D. A., & Volpp, K. G. (2015). Wearable devices as facilitators, not drivers, of health behavior change. *JAMA, 313*(5), 459-460. doi:10.1001/jama.2014.14781

65 Ledger D, McCaffrey D. Endeavour Partners Report: Inside Wearables: How the Science of Human Behavior Change Offers the Secret to Long-term Engagement. Endeavour website. http://endeavourpartners.net/assets/Wearables -and-the-Science-of-Human-Behavior-Change-EP4 .pdf. January 2014. Accessed July 15, 2014

66 Etkin, J. (2016). The hidden cost of personal quantification. *Journal of Consumer Research, 42*(6), 967–984. http://doi.org/10.1093/jcr/ucv095

INCENTIVE DESIGN

As we saw in our interviews with companies that attended Irrationally Healthy, companies are spending significant dollars on financial incentives.

Optimizing your incentives can be a powerful way to help your employees get proper preventive care and adopt and maintain a healthy lifestyle. Establishing an effective incentive system is critical for controlling health care costs and managing health. An understanding of behavioral science allows you to design incentives with maximum "bang-for-the-buck," both amplifying the impact of your initiatives as well as controlling program costs.

What is an incentive, anyway? A broad definition of an incentive is that it's anything that increases the frequency of a behavior; It's anything that gets people to do something more often.

Many businesses think about incentives for employee health in a much more narrow sense - construing them primarily as financial incentives, such as bonuses.

Financial incentives can be very effective, and it's easy to imagine that, if given enough money, employees will agree to take simple steps to improve their health and well-being. However, while spending a lot of money to influence employee health might work, it is not always necessary. Because researchers have taken a broader view of what incentives are and how they motivate people, we know that simpler things such as the approval of colleagues, a small prize, or even the chance to win a lottery motivates us. While incentives can involve money, it is important to remember that they often don't, and that they can be anything that changes the cost and benefits of behaving in a particular way.

Incentives don't have to mean paying people to do something.

A) What is the behavior you're trying to encourage?

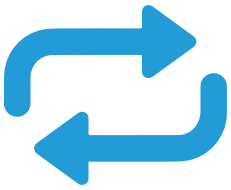
The key part here is to think of behaviors, not outcomes. Examples of behaviors: going to the gym after work every Monday, eating a salad for lunch, getting a mammogram. An example of an outcome would be losing weight. Incentives are more effective when they target behaviors, not outcomes.

B) Is the behavior one-time or repeated?

When designing an organization's incentive program, it is key to ask ourselves if the behavior we want to influence is something that should happen only once or several times. If the answer is "several times," we need to think about how incentives can be used to build healthy habits.

Part of why getting regular exercise and eating healthy is so hard is that taking an action repeatedly is more difficult than just doing it once. Regular exercise involves not only creating the habit of being physically active, but also intentionally overcoming an existing habit of being sedentary. Bad habits are hard to change, but the good news is that so are healthy habits: Once they are formed, they provide the most resilient and sustainable way to maintain a behavior. In order to support ourselves in building habits that stick, it is important to understand how they work.

A habit is a repeated behavior that is triggered by cues in our environment. In order to save time and effort, our brain creates strong associations between cues and routines that we do regularly.[67] Since habits become deeply ingrained and often automatic, we may not even notice them. **In fact, researchers have estimated that habits account for as much as 40% of our behavior on a given day.[68]**



In addition to the cue and routine, adding a reward can help drive us forward and give us a reason to repeat a new behavior. Rewarding experiences make us want to come back and do it again. Over time, the cue gets associated with the reward, encouraging us to perform the routine even if there won't actually be a reward at the end of it. This is important: Rewards can be anything and can happen at a random time.[69]

67 Wood, W., & Neal, D. T. (2007). A new look at habits and the habit-goal interface. *Psychological Review, 114*(4), 843–863. http://doi.org/10.1037/0033-295X.114.4.843

68 Neal, D. T., Wood, W., & Quinn, J. M. (2006). Habits - A repeat performance. *Current Directions in Psychological Science, 15*(4), 198–202. http://doi.org/10.1111/j.1467-8721.2006.00435.x

69 Wendel, S. (2014) Designing for behavior change

To illustrate this "habit loop", let's look at an example: Putting out our exercise clothes in the morning (cue) can lead us to go for a run (routine) which fills us with endorphins and makes us feel good about ourselves, or we treat ourselves to a nice glass of juice (reward). Then, when we see the exercise clothes again the next morning, we are reminded of the reward which motivates us to do the routine.

Below you will find a few examples how to design incentives to maximize impact.

10 Pro Tips to Design Effective Incentives

1 Make them easy to understand

Make enrollment and participation in incentive programs simple and straightforward. Communicate clear, actionable steps that employees need to do to get rewarded: **Presenting too much information reduces the likelihood that people will read it.** Showing a lot of information on how the incentive program works will only make it seem complex, and complexity makes us avoid acting or making a decision. A famous study by Iyengar and Lepper demonstrated the concept that too much choice isn't always better. On two days, shoppers in a supermarket had the chance of sampling either 24 or 6 types of jam. The large display attracted more interest than the small one. But when the time came to purchase, people who saw the large display were one tenth as likely to buy as people who saw the small display.[70]

2 Make participation easy and automatic

Employees should be defaulted into the incentive program. Automatic enrollment means that it is easier for everyone to participate. Whenever possible, the amount of points an employee has earned by reaching goals should be added automatically.

70 Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: can one desire too much of a good thing? *Journal of Personality and Social Psychology, 79*(6), 995–1006. doi:10.1037/0022-3514.79.6.995

3 The best incentive designs reward behaviors, not outcomes

Because of a psychological Behavioral Insight called hyperbolic discounting, termed by psychologist Richard Herrnstein, we overvalue the present in comparison to the future. This means that because the benefits of healthy behaviors such as getting routine health checks or vaccines are primarily in the future, it can reduce people's motivations to get checked. **Because of this, incentives that reward each positive behavior and not only the long-term outcome are more effective.**[71] Examples of actions include: attending a class or a health check-up, getting a vaccine, taking ten thousand steps in a day, joining a rec group, and completing a challenge. Examples of outcomes include: specific weight or BMI, blood pressure results, and so on.[72]

Make sure the reward follows the desired behavior as quickly as possible 4

Research shows that rewards that are received immediately after the desired behavior are more motivating than rewards received in the future. The value of delayed rewards is discounted, meaning that it is reduced in value or considered to be worth less, compared to the value of an immediate reward.[73] For example, if an employee somehow hits a goal in the month of May instead of all the way in December, he or she should ideally get a reward right then in the month of May. Examples of such immediate rewards could include: free premium for the month of May, one PTO day (applied immediately, not for the following year), or a cash-in-hand prize.

The value of delayed rewards is discounted

71 Laibson, D. (1997). Golden eggs and hyperbolic discounting. *Quarterly Journal of Economics, 112*(2), 443–477. doi:10.1162/003355397555253

72 Gneezy, U., Meier, S., & Rey-Biel, P. (2011). When and Why Incentives (Don't) Work to Modify Behavior. *Journal of Economic Perspectives, 25*(4), 191–210. doi:10.1257/jep.25.4.191

73 Kirby, K. N. (1997). Bidding on the future: Evidence against normative discounting of delayed rewards. *Journal of Experimental Psychology: General, 126*(1), 54–70. doi:10.1037/0096-3445.126.1.54

5 Make rewards visible and concrete

In addition to being immediate, the most impactful rewards are also visible to the member. For example, cash, a check or a tangible object will be more effective than a deposit into a bank account. Furthermore, from an ROI standpoint, behavioral science research has found that tangible objects (such as t-shirts, iPhones, or Fitbits) can often be much more motivating than the equivalent amount given as money.[74]

Applying the Insight:

At Zappos, people get a Z endurance branded t-shirt for participating in endurance events. If they complete 10 endurance events, they get a Z endurance jacket. This is a nice example of an incentive that can have high value; wearing a Z endurance jacket shows to others that you are a fit/healthy person and this can create a feeling of pride.

6 Avoid paying people money when possible

It's important to be aware that money can change the nature of relationships. Even though money is powerful, it does have its psychological drawbacks. It changes the nature of the relationship between the two parties involved. Just imagine how weird it would feel if a friend of yours plunked a twenty-dollar bill down on the table after joining you for dinner at your house. This action feels strange because you two have a social relationship, but the money re-framed the interaction as a transactional one, one usually associated with shop owners and salespeople. This is not the way we interact with friends, unless we want them to start charging us for their services. By bringing money into the situation, you have placed a monetary value on your friend's contribution. When not to use money: When you have a social relationship with the person you're trying to motivate/reward. This is because money implies a business/transactional relationship. Since money changes the nature of the relationship, it changes the way that both parties behave.

Even though money is powerful, it does have its psychological drawbacks.

74 Kullgren JT, Troxel AB, Loewenstein G, et al. (2013) Individual-versus group-based financial incentives for weight loss: a randomized, controlled trial. Ann Intern Med. 2013;158(7):505-14.

7 Social incentives are also powerful and often cost little to nothing

A broad array of research in behavioral economics shows that social incentives such as peer recognition can be more effective than financial incentives at inducing people to participate in prosocial activities.[75] For example, after people get their flu shot, you can give them an "I got my flu shot" sticker or mug, similar to the "I voted" stickers given at voting booths. This serves two purposes: 1) it's a social reward for those who get the shot, showing that they are smart about taking care of their health and 2) it's another visual reminder for others to get their shot.[76]

Social incentives such as peer recognition can be more effective than financial incentives

Increasing the social element of incentives can increase their power and their impact by making us more directly accountable to others. A study by Kullgren and colleagues showed that a group-based financial incentive was more effective than an individual incentive and monthly weigh-ins at promoting weight loss among obese employees at 24 weeks.[77] In the individual group, those meeting or exceeding weight loss goals received $100 per person per month. For the group incentive, $500 per month was split among participants in five-person groups who met or exceeded monthly weight loss goals. The mean weight loss was greatest among the group-incentive group (10.5 lbs.), followed by the individual-incentive group (3.7 lbs.) and the control group (1.1 lbs.). Social incentives increase motivation and make people accountable to each other.

To apply social incentives to your current structure, make sure you include ways that family members or colleagues can be accountable to each other: If more of them complete a fitness challenge, get vaccinated or complete a health assessment, the more the group wins.

75 Ashraf, N., Bandiera, O., & Jack, B. K. (2014). No margin, no mission? A field experiment on incentives for public service delivery. *Journal of Public Economics, 120*, 1–17. doi:10.1016/j.jpubeco.2014.06.014

76 Gerber, A. S., & Rogers, T. (2009). Descriptive Social Norms and Motivation to Vote: Everybody's Voting and so Should You. *The Journal of Politics, 71*(01), 178. doi:10.1017/S0022381608090117

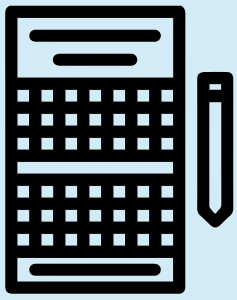
77 Kullgren JT, Troxel AB, Loewenstein G, et al. (2013) Individual-versus group-based financial incentives for weight loss: a randomized, controlled trial. Ann Intern Med. 2013;158(7):505-14

Consider using lotteries for higher-value incentives 8

Research in behavioral economics has shown that we tend to overestimate our likelihood of winning and do not want to regret the loss of the opportunity to win a large prize. This makes people more likely to change their behavior in exchange for being entered into the lottery. This approach can be utilized to engage more people through a lottery-based incentive approach. Because we often overestimate our chances of winning, we are more likely to do something if it gives us the chance to win a great prize we really want, compared to the definite chance of winning something smaller.

9 Consider using regret lotteries

People are likely to change their behavior in exchange for being entered into a lottery because they don't want to regret not qualifying to win.



This lottery-based incentive approach was originally applied to adherence to drug treatments. Researchers at the Penn Cardiovascular Institute enrolled participants in lottery each day they were expected to take a pill, potentially earning $5 each day. They were also given an electronic pill-box, keeping track of whether they had taken the pill or not and reminding them to do so. Even though they would be entered each day, they were only eligible for their prize if the electronic pill-box showed that they had in fact taken their pill that day. Incorrect (forgotten) pill-taking dropped from 22% to only 2.3% in the first study and to 1.6% in the second. Because we dread the feeling of regret that we might have if our names are drawn but we didn't qualify for the prize, we are more likely to do what is required to qualify.[78]

78 Kimmel, S. E., Troxel, A. B., Loewenstein, G., Brensinger, C. M., Jaskowiak, J., Doshi, J. A., Laskin, K., & Volpp, K. (2012). Randomized trial of lottery-based incentives to improve warfarin adherence. American Heart Journal. Volume 164, Number 2

10 Leverage people's aversion to losses

Behavioral science research has shown that people prefer avoiding losses to acquiring gains, since we tend to overvalue things we own. This means that the potential of loss of a reward is a more powerful motivation than receiving one.

This principle has been applied to exercise behavior in a study on walking. Mitesh Patel and his colleagues asked participants to walk 7,000 steps per day for 26 weeks. For the first 13 weeks of the study, the participants were split into four groups where the only difference was the type of reward they received: One group received no reward, another got the chance of winning $1.40 per day, another received a definite $1.40 per day they successfully reached their step goal, and finally the last group received a set amount at the beginning of the month but lost $1.40 for each day they failed to reach their goal. In the study, the loss incentive group came out as a clear winner, with people achieving their 7,000 step goal about 50% more often than any of the other groups.[79]

To apply loss aversion to your incentive programs, make employees feel like they have the reward before they have actually earned it – and the reward is theirs to lose if they don't follow through on the behavior change desired.

C) What type of reward is best for this behavior?

79 Patel, M. S., Asch, D. A., Rosin, R., Small, D. S., Bellamy, S. L., Heuer, J., … Volpp, K. G. (2016). Framing Financial Incentives to Increase Physical Activity Among Overweight and Obese Adults: A Randomized, Controlled Trial. *Annals of Internal Medicine, 164*(6), 385–394. http://doi.org/10.7326/M15-1635

Different Types of Incentives

FINANCIAL INCENTIVES

What they are:

- Bonuses
- Contributions to a Health Fund
- Cash prize
- Retirement benefits
- Reimbursements

When financial incentives work:

- To encourage one-off behaviors.
- When they are immediate and visible, such as cash or check (as compared to direct deposit).

When they don't work:

- They are not a good idea to use when the company's financial resources are limited.
- If the reward is too small.
- If the reward isn't visible, for example by getting added onto a paycheck.
- To influence behavior such as habits over time.
- Can make employees do the healthy behavior only for the sake of the financial reward.

SOCIAL INCENTIVES

What they are:

- Sticker or mug that shows you participated: Think "I voted!"
- Praise and approval, such as a "healthy employee of the month" award
- Feeling of community and belonging
- Social status
- Competition and prestige, for example a leadership board in the company gym or a t-shirt for the winning team in a league.

When social incentives work:

- When the correct way to behave is unclear.
- When teams are cohesive. We are more likely to follow the behavior of similar others.
- Social incentives are a great alternative to financial incentives because the cost is often low and the impact is high.

When they don't work:

- If employees don't interact with each other much.
- Some kinds of social incentives might not work as well for remote employees.

PRIZES

What they are:

- Gadgets such as headphones, iPad, fitness tracker
- New gym gear
- Tickets to events
- Spa treatment
- Extra paid leave days
- First choice of desk or parking space

When prizes work:

- When the prize is something employees care about and are excited to win.
- When it feels likely to win.
- When employees trust the company to deliver on the prize.

When they don't work:

- If employees already have or don't want the prize.
- If there are too few prizes.
- If the rules of the competition are too complicated.

POINTS

What they are:

- Points that are collected from completing preventive check-ups
- Points for number of gym visits or classes attended
- Steps on your pedometer going towards a goal.

When points work:

- Gradually working towards a goal and/or reward we care about is motivating when points show us our progress.
- Great for showing that you reward behaviors rather than outcomes.
- Offer smaller rewards along the way for partial goals to keep people motivated.
- When they are offered immediately and automatically.
- If it's easy to understand how you get points and progress towards your goal.

When they don't work:

- When we don't care about the rewards.
- When we are not especially motivated to change our behavior.
- If we don't get positive feedback on our progress along the way.
- If employees have to input their behaviors to register points.

Applying the Insight:

Innovative Incentive Programs

Amgen has an innovative incentive program in which they paid for 25% of the cost of employees' wearable fitness trackers. The employees were responsible for the remaining balance of the cost, which was waived if they met activity goals.

Another innovative program came from a company that used a unique approach to increase mammography rates in female employees aged 50+. For each employee who got a mammogram, the company paid for a mammogram for another (low-income) woman in the community. This type of model can be more powerful than a financial incentive because the employee feels like a kind, altruistic person.

Making Changes to Incentive Programs

The science of what truly motivates people is powerful. In our post-conference survey, when we asked Irrationally Healthy Attendees how likely they were to make changes to their current programs, **incentive design stood out as the #1 category attendees wanted to change** (with an average score of 8 out of 10). If you do want to make changes to your program, the next question you might ask yourself is how do you get started moving from one kind of incentive structure to another?

In general, people don't like changes, even those which seemingly don't make a big difference. However, people also differ in how resistant they are to changes, how much they enjoy and make use of the existing system, how they compare the old and the new structure, and so on.[80] It can be a good idea to carefully consider how different employees will react to a new incentive structure. Will employees be happy or upset about changes? Will the new system influence more people in the long run, even if people are hesitant at first?

80 Oreg, S. (2003). Resistance to change: Developing an individual differences measure. *Journal of Applied Psychology, 88*(4), 680–693. http://doi.org/10.1037/0021-9010.88.4.680

Some incentives are relatively easy to change, for example the kind of rewards employees get for participating in an exercise challenge. Because competitions are seen as one-off events, employees are less likely to compare them and be unhappy about changes. With more complex incentive structures, for example when companies have used health reimbursements for completing assessments for years, it can be more complicated to transition to something else. Framing the new benefit roll-out in an appropriate way can go a long way towards making sure employees are satisfied and that they will make use of the new system.

3 Lessons on how to frame new benefit roll-out:

1. **Avoid making several small changes.**
   Many small changes to the incentive structure makes it seem unnecessarily complex, which can cause employees to disengage. If you intend to make lots of changes, it's better to completely relaunch it as a new program.

2. **Make it difficult to compare the old and the new system.**
   A complete rehaul of the incentive structure makes it difficult to compare the relative quality of the old system against the new system.

3. **Make the transition period as easy as possible.**
   One if the reasons people dislike changes is that it involves more work for them in the short term.[81] Make sure you design your new incentive program with this in mind, making it easy and attractive to get started.

81 Kanter, R. M. (1985). Managing the human side of change. *Management Review, 74,* 52–56

COMMUNICATIONS DESIGN

While we have noted that awareness and education alone are not usually sufficient to change behavior, communication is a key part of any successful program. Organizations with more effective communication are more successful at creating cultures and workplaces that support health. Why is communicating what benefits and resources are available so important?

- Companies that are highly effective at communication are 1.7 times more likely to outperform their peers.[82]
- 61% of employees are likely to accept lower pay but better benefits.[83] Candidates won't know what you have to offer unless you show them!

Apply behavioral insights to elevate your communication in these ways:

Reduce barriers to access information

One area of considerable opportunity is to simply make information about health and benefit programs readily available and easily accessible to all employees and their families. The most effective way to do this is to hold that information on a single website available outside of the company's firewall, so all employees and family members can access it 24/7. Currently, only about 50% of employers have a health or benefits website outside their firewall.[84]

Why is this so important? Employees aren't the only decision makers when it comes to choosing benefits and participating in what's offered. Spouses play a large role, too.

82 Clear Direction in a Complex World. How Top Companies Create Clarity, Confidence and Community to Build Sustainable Performance, 2011–2012, Towers Watson
83 Retention Rides on a Well-Communicated Benefits Plan, September 2012, Employee Benefits News
84 2014 Inside Benefits Communication Survey

The website also acts as the one-stop shop for actions you want employees to take. Rather than having to remember dozens of carrier websites and providers, employees have to only remember one URL, which reduces a large barrier to action. (Note: We recommend a simple URL that is easy to remember and does not include a lot of backslashes.)

Improve communication timing

Traditionally, many employers concentrated education about health and benefits during the one-time-a-year annual enrollment process. This approach can be overwhelming for employees and it doesn't encourage action and engagement throughout the year.

It is possible to support employees throughout the year by giving them tips, reminders and updates at the right times.

• Focus on just-in-time communication

According to John Lynch, director of the Center for Research on Consumer Financial Decision Making at the University of Colorado Boulder, the right time to communicate is when the person can take action quickly after learning something new. Lynch calls this "Just In Time" education.

> "We also realized that the length of time between the intervention and the moment the person put it to use was important: education is more effective when there's less time between the intervention and the action."
>
> *- John Lynch*

• Tie communication closely to intended action

Significant life events or monthly/weekly milestones can create the "Fresh Start Effect." The fresh start is the energy and determination we feel when we're able to wipe the slate clean. According to professor Katie Milkman, "The same momentum that drives us to join the gym in January can be harnessed

to help us focus on the pursuit of goals at other times throughout the year." Milkman finds in her research that fresh-start moments happen frequently, from an ordinary Monday or the 1st of the month to the start of Spring or a Birthday. Similarly, life events such as a new marriage or the birth of a child can be framed in a way to trigger the Fresh Start Effect.

Here are three examples for designing communication to harness someone's fresh start mindset:

- **"New year, new you!"** This is a great time to tap into the motivation around New Year's resolutions and to remind employees of the programs available. If you have a discount on gym memberships, now is the time to promote it.
- **"Start Summer Right."** Promote your time-away programs and other resources to help with stress management.
- **"This Holiday season will be different!"** Your tips and tricks to stay sane – promote the convenience of your on-site cafeteria, stress management through an Employee Assistance Program, and more.

• Use Text Messages to increase engagement

Text messages can be an extremely quick and efficient way to get attention, and one that's likely not to be missed as many people are tethered to their phone. Texts have also been proven to be highly effective at behavior change.[85]

Health researchers found that daily text messages containing weight loss tips and tricks resulted in participants losing 1.97 kg more weight compared to providing monthly printed material. This weight loss was persistent in months 2-4 in contrast to the condition that provided just printed material. In addition, the participants in the treatment group were more engaged and active. At the end of the four months, participants in the intervention group were responding to approximately two thirds of the messages requesting a response, suggesting that these messages were welcome and beneficial.

85 Patrick, K., Raab, F., Adams, M., Dillon, L., Zabinski, M., Rock, C., ... & Norman, G. (2009). A text message-based intervention for weight loss: randomized controlled trial. *Journal of medical Internet Research, 11*(1), e1.

Another study found that text messaging doubles the odds of medical adherence for chronic diseases. The robust meta-analysis of multiple studies found that if adherence rate is typically 50% for patients with chronic disease, it'll go up to 67.8% with SMS campaigns. Researchers also found that "the effect was not sensitive to study characteristics (intervention duration or type of disease) or text message characteristics (personalization, 2-way communication, or daily text message frequency)." This implies that the platform of SMS may be the main driver to increase adherence.[86]

How to get started with using text messages? You can work with carriers/ administrators and other providers that have this capability, or you can work with internal communications and add it to your own internal channels.

86 Thakkar, J., Kurup, R., Laba, T. L., Santo, K., Thiagalingam, A., Rodgers, A., ... & Chow, C. K. (2016). Mobile telephone text messaging for medication adherence in chronic disease: a meta-analysis. *JAMA internal medicine,176*(3), 340-349.

Now, you try: Apply behavioral economics to your benefits message communication.

You've already learned about many Behavioral Insights. Here are a few concrete examples of how to apply those Behavioral Insights to your messaging.

Loss aversion – try this: Instead of promoting a $50 reward, reframe to say, "Don't lose out on $50!"

Hyperbolic discounting – try this: Instead of promoting the value of an HSA during retirement to a population averaging 25 years old, promote the account as a way to immediately save on taxes.

Testimonial – try this: Testimonials are especially effective on more emotional benefit topics, such as wellness (e.g. "a biometric screening saved my life!") or a leave of absence. Finding a champion to share their story will inspire more confidence in the program and connect a human face to it.

Implementation intentions – try this: Help people think through the details of when they will take action. For example, when sending a mailer about the dates that flu shots will be available, leave a space for the employee to fill in. I will get my flu shot on (day)_____ at (time)____. You do not need to collect this form. Helping employees think about this action alone can increase follow-through.[87]

Social proof – try this: Target communication at those employees who don't participate and let them know what their peers are up to. "75% of your colleagues contribute enough to get the full company 401(k) match. Why don't you?"

Goal gradient effect – try this: Give new life to standard benefits checklists, such as those commonly prepared for open enrollment, by adding a few "easy" items you can have pre-checked. This can help employees feel like they are advancing toward their goals and give them a boost to follow through on the remaining activities.

87 Milkman, K. L., Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2011). Using implementation intentions prompts to enhance influenza vaccination rates. *Proceedings of the National Academy of Sciences of the United States of America, 108*(26), 10415–10420. http://doi.org/10.1073/pnas.1103170108

PROVIDER PARTNERSHIP AND RELATIONSHIP DESIGN

Provider partnerships are another opportunity for employers to provide health care programs that improve health and help to manage costs.

Employers are increasingly working closely with physicians and health systems in their local markets: according to the National Business Group on Health annual survey, the percentage of large employers sponsoring Accountable Care Organizations (where provider groups take accountability for the cost and quality of care) has increased over threefold since 2013. These partnerships can be designed with wide or narrow scopes, from direct contracting for narrow networks to enlisting provider support in better engaging members in specific programs, such as care management or centers of excellence.

Partnerships with local provider groups can help employers succeed at some of their most elusive health care goals, such as reducing avoidable emergency room use, increasing engagement rates in offered programs, and encouraging lifestyle behavior change for better health and wellness. These successes are possible in large part because of the ways that behavioral economics principles play out in provider partnerships:

- **Reducing avoidable emergency room use:** primary care partnerships that expand available appointment hours make primary care the path of least resistance for minor health needs.
- **Increasing program engagement rates:** embedding programs such as care management into existing primary care makes active member participation the default behavior.
- **Lifestyle behavior change for better health and wellness:** programs delivered or endorsed by providers can take advantage of social norms in patient relationships with physicians and office staff.

Social norms and the power of relationships have a large part to play in why provider partnerships are effective. When a member makes a health care choice, whether it's to engage in a program for healthy lifestyle changes or where to go for a major surgery, that choice is often made with strong input from their physician or their physician's office staff. If those influencers are leading or partnering in programs provided by an employer, the likelihood that a member makes good use of those programs increases dramatically.

Provider partnerships are also the most evidence-based way to deliver specialized services to the high risk, high cost patients that drive the vast majority of total population spend, in order to improve health and quality of care while reducing costs.[88]

Many telephonic disease management programs, often delivered by insurance carriers, fail to achieve significant engagement rates.

Provider delivered programs, on the other hand, have achieved much higher engagement, with some engaging over 90% of targeted members.[89] [90]

Comparing the following recruitment experiences shows the key differences in choice architecture:

- **Telephonic, plan delivered:** High risk patient receives a letter and a voicemail from a care manager employed by their insurance company. No pre-existing relationship, seems disconnected from current care and is unrelated to a moment of health care activity; action is required to enroll and actively engage in care management services.

- **In-person, provider delivered:** During a primary care visit, the high risk patient is introduced to the care manager, who is endorsed by the primary care physician as part of her/his team. Pre-existing relationship, part of current care and presented in a moment of health care activity and need, no action required to engage.

88 Milstein and Kothari, "Are Higher Value Care Models Replicable?". Health Affairs Blog, 10/20/09. Accessed online 9/5/16: http://healthaffairs.org/blog/2009/10/20/are-higher-value-care-models-replicable/

89 Annis, Holtrop, Tao, Chang, and Luo, "Comparison of Provider and Plan-Based Targeting Strategies for Disease Management". Am J Manag Care. 2015;21(5):344-351. Accessed online 9/15/16: http://www.ajmc.com/journals/issue/2015/2015-vol21-n5/comparison-of-provider-and-plan-based-targeting-strategies-for-disease-management

90 Stremikis, Hoo, and Stewart, "Using the Intensive Outpatient Care Program to Lower Costs and Improve Care for High-Cost Patients". Health Affairs Blog, 2/2/16. Accessed online 9/5/16:

A few behavioral economics and choice architecture principles are at play in these examples. Social norms, self-herding, and defaults are all driving non-engagement in the former example and all nudging towards engagement in the latter.

Building on high engagement rates, care management programs delivered by providers have proved successful in improving health and managing costs.[91] Successful programs have leveraged intrinsic provider assets (such as ongoing relationships and role as trusted navigator of health system) and evolving care strategies (such as motivational interviewing) to reduce costs by up to 20% and improve health and wellness indicators such as self-reported physical functioning, depression scores, disease management metrics, and days missed from work.[92] [93] [94]

In review, these specialized care management programs work best when delivered by providers due largely to principles of behavioral economics:

- Engagement in the program becomes the default behavior, thus increasing program use and impact.
- The social elements of relationship-based care enable the behavior change that's needed for members with complex needs to reach and maintain better health.

Care management is just one program that can be delivered much more effectively through direct provider partnerships. Common employer programs such as back and joint pain, mental health coaching, and specialty pharmacy efforts can all be made more effective when providers are active partners in recommendation, referral, and delivery.

91 Hong, Abrams, and Ferris, "Toward Increased Adoption of Complex Care Management". N Engl J Med 2014; 371:491-493. Accessed online 9/5/16: http://www.nejm.org/doi/full/10.1056/NEJMp1401755#t=article

92 Milstein and Kothari, "Are Higher Value Care Models Replicable?". Health Affairs Blog, 10/20/09. Accessed online 9/5/16: http://healthaffairs.org/blog/2009/10/20/are-higher-value-care-models-replicable/

93 Brian Schilling, "Boeing's Nurse Case Managers Cut Per Capita Costs By 20%". The Commonwealth Fund Purchasing High Performance Archive, 3/15/11. Accessed online 9/5/16: http://www.commonwealthfund.org/publications/newsletters/purchasing-high-performance/2011/march-29-2011/case-study/boeings-nurse-case-managers

94 HHS Innovative Profiles: Private Sector Activities Focused on Improving the Health of Individuals with Multiple Chronic Conditions, September 2012. Accessed online 9/5/16: http://www.hhs.gov/sites/default/files/ash/initiatives/mcc/implementation/mcc-profiles-report.pdf

Applying the Insight:

Though they are outside of the traditional employer health care toolkit, employer-provider partnerships are on the rise. Early movers like Boeing, Ford, and Intel have shown that successful programs can take many forms. Building on a pilot care management program, Boeing is continuing to use benefit design and direct partnerships with local providers that serve as preferred networks or Accountable Care Organizations to cover the full range of health care services in a given geography.[95] Ford and Intel, on the other hand, have partnered with local providers to address specific cost and quality challenges with more narrow programs such as complex care management and back pain initiatives.[96] [97]

For some employers, provider partnerships can seem like a difficult program to put in place. Many employers assume that only health plans can work with providers, or that they need very large volumes of members to make it work, or that providers will be resistant to innovative arrangements. Increasingly, however, health care providers are open and eager to build direct partnerships with employers. With the right approach and resources, provider partnerships are possible for more and more mid-size to large employers. Best practices for successful implementation include:

- **Framing partnerships in terms of community health (rather than costs).**
- **Exploring options to make a provider organization part of a preferred network.**
- **Beginning discussions by bringing data on population need and health care use (such as claims data reports) to providers.**
- **Reaching out to experienced employers and implementation partners in successful models for feedback and lessons learned.**

95 Richard Stolz, "Boeing expands its ACO plan…". Employee Benefit Advisor, 7/18/16. Accessed online 9/18/16: http://www.employeebenefitadviser.com/news/boeing-expands-its-aco-plan-to-cover-15-000-employees-in-southern-california
96 Mike Ramsey, "Ford Embarks on Health Management Program". The Wall Street Journal, 6/24/13. Accessed online 9/18/16: http://www.wsj.com/articles/SB10001424127887324183204578565503660688878
97 Patricia McDonald, et al, "The Employer-Led Health Care Revolution". Harvard Business Review, July-August 2015.

You are now a behavioral expert!
Action Time!

1. Print me (this page).

2. Pick one Behavioral Insight that you will share with your team: (Tip: If you can't decide, pick one that struck you the most.)

_____

_____

3. Pick one thing you'll do differently: (Tip: Start with something easy.)

_____

_____

_____

_____

4. Put me up at your desk as a reminder.

APPENDIX

Who participated in Irrationally Healthy?

Amgen
Activision Blizzard
Centene
Eli Lilly
Ebay
Google
Intuit
Kroger
P&G
Salesforce
Sutter Health
T-mobile
Target
Time Warner
University of Michigan
Williams-Sonoma
Zappos

Employee base size

The total number of employees of all these companies surpasses 1.2 million.

Employee distribution

83% of companies have mostly employees
17% of companies have about an even split between employees and contractors

56% of companies have mostly salaried employees
33% of companies have mostly hourly employees
11% of companies have about an even split between salaried and hourly employees

Average Tenure

50% of companies have an average employee tenure of under 5 years
29% of companies have an average employee tenure of 5-9 years
14% of companies have an average employee tenure of 10-14 years
7% of companies have an average employee tenure of over 15 years

Work Site

100% of companies that most of their employees work from the office/plant (not remote)