

Beyond good intentions:
Making health behavior change a reality



Despite the overwhelming amount of information on the negative effects of smoking, weight gain, inactivity and poor diet, all these health risks remain prevalent. Most people know how to improve their health, and many want to do it. Yet, despite good intentions, change is hard to achieve.

Organizations across the country recognize this challenge and are turning to health management programs to encourage and support their employees' healthy intentions. As a result, the availability of employer-sponsored health and wellness programs has increased over the last decade — but there are still behavior change barriers to overcome. This paper provides a brief look into the science behind how people make health decisions, and the role the physical environment can play in maximizing the impact of health and wellness programs. Understanding both the emerging science and the important role our environment plays in influencing daily health decisions will help employers build a more robust culture of health in the workplace.

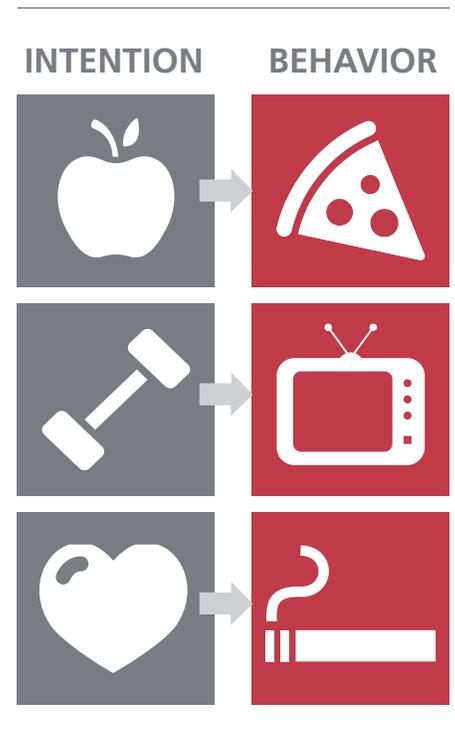
Intention to change isn't enough

Although there are many factors that undermine our best intentions, the most basic is the way we think. Research shows that having information and a desire to change is often insufficient.

We have analyzed the latest published research from behavioral economics and psychology to search for insights into why we often fail to act on our good intentions.

We want to lose weight, but snack on chips instead of carrots. We want to quit smoking but have one "last" cigarette before giving them up — starting tomorrow. We know we should exercise, but watch TV instead.

These failures are familiar to anyone who has been frustrated in their efforts to make meaningful lifestyle changes, and behavioral science has a name for it — the intention behavior gap.¹ It is defined as the disconnect between knowing what you need to do and actually doing it.²



Decision-making insights

When it comes to identifying the personal barriers to healthy change, many people would point to insufficient time, resources or motivation. Undoubtedly, these are among the reasons for the failure of our best-laid plans. Behavioral science, however, tells us there are additional processes operating outside our awareness that account for many of the difficulties we face in making optimal health decisions. It turns out we often reach decisions using mental shortcuts, present-biased thinking, and other tactics that short-circuit our ability to make optimal or even reasonably good choices about our own health and well-being. Behavioral scientists also point out that we can rarely be sure how a specific action will affect our future health. For example, what exactly do we risk, and with what probability, by passing on the apple and choosing a cookie instead today? It's impossible to say. Unlike decisions understood through traditional economic models, in which people's choices are assumed to align perfectly with their preferences, behavioral science suggests there are more complex cognitive factors at play.³



Behavioral economics suggests our cost-benefit analyses are less objective than we think. They are skewed by the way choices are presented, and they are strongly influenced by extraneous factors, such as our ability to process information, our emotions, and our time constraints.

Barriers to change:

This paper highlights six major factors that undermine our healthy intentions.

 1	 2	 3
We are wired to favor impulsive choices.	We are too busy to make clear-headed decisions.	We have limited willpower.
 4	 5	 6
We live for today.	We are influenced by our environment.	We tend to go with the flow.



#1

We are wired to favor impulsive choices.

Psychologists Daniel Kahneman and Amos Tversky have suggested the brain has two systems working together to make decisions: the intuitive system, or “System I,” is emotional, automatic and rapid. The deliberate system, “System II,” on the other hand, is conscious and takes effort to engage.⁴ When you see a donut, the automatic urge to grab it is generated by the intuitive system, whereas considering how many

calories are in the donut requires engaging the deliberate system. Choices emerge as an interplay of the two systems. The intuitive system has the first say because it comes online rapidly, responding to salient emotional stimuli. And unhealthy options are often intuitively appealing. Think about it: while thoughts of chocolate-chip cookies or macaroni and cheese may evoke desire and perhaps pleasant childhood memories, thoughts of broccoli or asparagus are less likely to spur desire and may even trigger disgust.

Implication:

Foods that are good for us are less intuitively appealing and trigger fewer positive emotions than unhealthy foods do. As a result, employers should realize they are fighting an uphill battle and will need to work hard to make healthy options as intuitively appealing as possible. For example, employers can place fruit in attractive bowls in a central location paired with enticing photos of fresh produce. In one study, researchers found that merely placing fruit in a nice bowl in a well-lit, central location increased fruit consumption by more than 100%.⁵

Call to action:

Make healthy choices intuitively appealing! Many vegetables — peppers, cherry tomatoes, carrots — are naturally colorful and beautiful. Liven up the salad bar with colorful additions, and decorate salad and fruit dishes with attractive garnishes.

- Place large, appetizing photographs of fresh vegetables and fruits or of healthy prepared salads throughout the cafeteria. Place the salad bar and fruit bowls in central locations next to enticing imagery.
- Make the salad bar more appealing by placing fresh vegetables in attractive containers.
- Think beyond food — decorate stairwells with employee artwork and fresh, bright paint.



Researchers found that merely placing fruit in a nice bowl in a well-lit, central location at a school increased fruit consumption by more than 100%.⁵



#2

We are too busy to make clear-headed decisions.

Engaging the deliberate system is effortful — it requires both ability and motivation. When we multitask or when we are distracted, extraneous thoughts compete for our attention and siphon away our brain's limited conscious processing power, inducing a state called "cognitive load." In their recent book, *Scarcity*, behavioral economists Sendhil Mullainathan and Eldar Shafir describe how stress occupies the mind, reducing the attention available for

properly thinking through a choice. In fact, the more complex the choice, the less likely people are to make an active or informed choice.⁶ Cognitive load reduces the ability to resist temptation. In one study involving food choices, people were asked to choose between fruit salad and cake. Those who were given the multi-tasking challenge of remembering a 7-digit number while making the food selection were 50% more likely to choose cake than those in the control group, who were given a 2-digit number to remember.⁷

Implication:

Exerting self-control requires scarce cognitive resources we often lack due to our busy and stressful environments. Therefore, when we are busy or stressed, we are especially likely to make indulgent choices without considering long-term consequences. This can happen easily in a busy workplace.

Call to action:

Make healthy choices easy — for example, leverage defaults. Defaults are a way of letting others recommend a decision for us when it might be difficult for us to make an intelligent, reasoned decision.⁸

- Leverage defaults in the cafeteria. Serve entrees with a side of vegetables unless fries are requested. Serve water with every meal unless soda is requested. Default to smaller portion sizes, allowing diners to request more.
- Integrate stretch breaks into meeting agendas.
- Make impulsive choices healthy choices! Place fruit and healthy snacks by the cash register and move unhealthy snacks out of reach.

**The more complex the choice,
the less likely people are to make
an active or informed choice.⁶**



#3

We have limited willpower.

Every day, we make decisions to resist temptations that go against our health goals — the colleague’s birthday cake, the bagels at the morning meeting, the after work appetizer hour, or our children’s leftover Halloween candy.

Our willpower is tested all day, every day, and it’s mentally exhausting. Scientists have found that resisting one impulse diminishes our ability to resist the next: willpower is a limited resource.

After a series of choices resulting in pain or self-denial, our reserves of willpower become depleted.⁹ In a field study in which participants wore beepers for a week and periodically reported whether they were experiencing or resisting a desire at that moment, researchers discovered that people spend about a quarter of their waking hours using willpower to resist desires.¹⁰

In addition to failing from depletion, willpower also fails when we are experiencing intense feelings, during what researchers call a “hot state” (e.g., hunger) — the desire for immediate gratification tends to shut out all other considerations.¹¹ In hot states, desire is so powerful that it easily overwhelms attempts at self-control.

Implications:

Resisting temptations, even simple ones like indulgent snacks or web surfing, can wear us down during the course of the day. For example, consider a dieter who has made difficult choices during breakfast and lunch. By dinner time, she may be suffering from decision fatigue, her reserves of willpower depleted. She will now be more likely to succumb to unhealthy temptations and find it difficult to judge appropriate portion sizes.

Call to action:

- Create a workplace “choice” environment that supports employees’ good intentions rather than working against them. Make temptations less accessible, establish healthy catering and “healthy treat” policies.
- Build indoor and outdoor walking routes to encourage movement during the workday.
- Develop policies that account for willpower diminishing over the course of the day. For example, restrict unhealthy snacks during afternoon meetings and instead increase availability of healthier options like fruit. Start an afternoon healthy snack delivery service to employee workspaces.
- Convert some break rooms into “energy rooms” or “relax rooms,” where employees can meditate, listen to music, or stretch. Provide yoga mats, stability balls and lemon-infused water to create a spa-like experience at work so employees don’t feel depleted.

According to one study, people spend a quarter of their waking hours using willpower to resist their desires.¹⁰

RESTRAINT BIAS:

May lead people to overexpose themselves to temptation because of overconfidence in their own willpower.[‡]



#4

We live for today.

Our thinking is biased toward the present — we heavily discount the future and privilege the now. Scientists call this “hyperbolic discounting.”¹² Understanding this bias is important because so many of the potential benefits of our health decisions accrue in the distant future, while the costs tend to be borne in the present. And the ties between the costs and benefits are indirect. For example, spending a few moments to floss is costly now, but we won’t reap the

potential benefit (avoiding a painful dentist visit)¹³ for years. And the pain of quitting smoking is immediate, while the potential benefit (preventing a tobacco-related disease) is distant. What’s more, we don’t realize how strong this tendency is. We expect that in the future, we’ll make better decisions — but when the future comes, it’s once again our present-biased self making the decision.

In one study, employees who had just eaten lunch were asked to choose a snack they would receive the following week — either junk food or fruit. Most chose the fruit. However, when the snack was delivered, the record of their choice seemed to be lost, and they were asked to choose again the snack they wanted right then. The result: only 20% stuck with fruit. The vast majority opted for the tempting treats.¹⁴

Compounding the problem of discounting the future, people tend to consider the costs of poor health decisions singularly rather than cumulatively.¹⁵ Applied to eating behavior, this means our brains are wired to give us leeway with individual health decisions, like eating one candy bar, because we know it won’t cause weight gain on its own. Unfortunately, the decision to eat a single candy bar usually becomes a series of decisions to eat more candy bars. The cumulative cost is high.

Implication:

The delayed feedback about the effects of our actions and the perceived negligible impact of any single episode of giving in to temptation makes self-control much more difficult. What if we ate a candy bar and instantly gained 10 pounds? Our behavior would change overnight. But the delayed impact of many short-term decisions can fool us into making the same bad choices again and again.¹⁶ We can compensate for delayed feedback by encouraging people to make healthy choices well in advance — and to lock those choices in.

Call to action:

- Encourage employees to pre-order healthy meeting food (before they get hungry).
- Offer healthy to-go snacks in the cafeteria that employees can buy at lunch and save for a mid-afternoon snack.
- Implement a dinner-to-go program that allows employees to pick up a healthy dinner pre-made for their family just as they are leaving work (hungry).



We expect that in the future, we'll make better decisions — but when the future comes, it's once again our present-biased self making the decision.



#5

We are influenced by our environment.

Many people fail to appreciate the power of the choice environment, but it greatly influences our behavior because it determines the easiest course of action. Our decisions are considerably influenced by which healthy and unhealthy choices are offered and how those choices are communicated. When thinking about the choice environment at work, it is important to consider: possibilities, persuasion and process.

POSSIBILITIES:
What choices are offered?

For example, what exercise equipment is available, and what varieties of healthy options are offered in the cafeteria?

PERSUASION:
How are choices communicated?

For example, is the entrée 95% fat free or 5% fat?

PROCESS:
How are choices presented?

For example, where are the healthy snacks placed in the vending machine?

People eat more tempting foods when they're easily accessible, or more noticeable. When a group of researchers experimented with candy bowls in an office environment, they found when the candies were close and visible, unwitting employees ate more than twice as many as they did when the candies were farther from their desks and in an opaque container. In the cafeteria, what healthy foods are available for purchase? Do the healthy or unhealthy foods come first in the buffet line? In an office vending machine, which snacks are displayed at eye level? Which entrees are listed first on a menu?

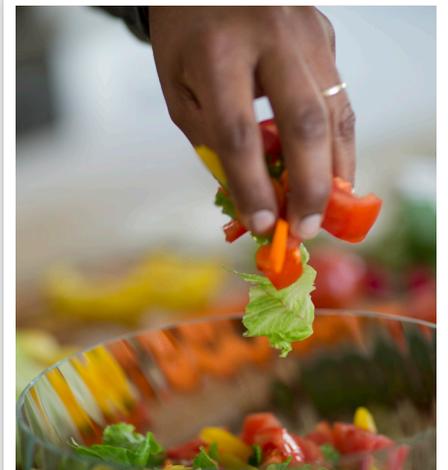
Implications:

We are simply out-matched by the environment and as a result, our best intentions often fall to the wayside. This paper has already illuminated many of the cognitive barriers that influence our decision-making processes. Those are exacerbated by contextual forces. All day long, our best intentions compete with environmental cues that nudge us in the wrong direction — gloomy stairwells, desk-based jobs, and comfort foods in the cafeteria. There is a significant opportunity to re-engineer the workplace (and our homes and communities) by leveraging design principles that support and nurture the daily health decisions we so desperately want to make.

Call to action:

Think about the healthy and unhealthy choices you make available in the workplace—how do you present and communicate those options?

- Group healthy snacks together, at eye level in the vending machine.
- Use the environment to make healthy choices easy: arrange hot lines from vegetables and sides first to the meat entrée last. Place the salad bar in a prominent location.
- Make less healthy choices more effortful: move the desserts and soda machine to the far back corner, place desserts in cases, place sugary sodas at the bottom of the beverage fridge.
- Create work out 'zones' on each floor that include yoga mats, free weights, stretchy bands, and other exercise tools employees can use at their desks.



WHAT'S WITHIN REACH?

Accessibility has a powerful effect on choices. For example, displaying healthy foods conspicuously in a cafeteria (at eye level or at various points in the cafeteria line) increases consumption of healthy food. Putting water on the table increases water consumption.**



#6

We tend to go with the flow.

Over time, the interplay of our psychology with the choice environment can lead to unhealthy habits that are hard to break. We tend to go with the flow. Despite the will to change, science tells us we disproportionately prefer the status quo to changing our established routines. These routines have been described as “mindless.”¹⁷ In much the same way we can drive home from work on autopilot, without

making many conscious decisions at all, we tend to mindlessly repeat eating patterns like finishing the food on our plate, buying popcorn at a movie theater, or reaching for a snack during a commercial break. Mindless eating is a particular risk when the mind is occupied by another activity, like watching television, driving or working. Researchers have found that the longer snackers watched television, the more they ate: because they were distracted, they didn’t realize how much they had eaten.

Implications:

Repeated cues can trigger consistent behaviors that solidify into habits, which can be good or bad. There is great opportunity to engineer the workplace and community environments to provide cues that support and nurture healthy habits — accessible stairwells, healthy food choices in the cafeteria, bike-to-work programs, walking meetings — by making healthy choices easier for employees. In addition, by gently reminding employees about a healthy choice at the moment of the decision, employers can interrupt unhealthy habits and reshape them into healthier ones over time.

Call to action:

- Incorporate health messaging throughout your workplace at the “Moment of Truth” — the moment that a health decision is about to be made. This type of messaging can interrupt our often mindless, habitual decisions and provide a meaningful nudge at the right time.
- For example: Place “take the stairs” signs near the elevators; create “save half for later” table tents in the cafeteria; place “fresh air this way” posters on exit doors that lead to walking paths.

MINDLESS EATING

People eat more when they are served a larger portion, when they use a larger plate¹⁷, or when they’re eating from a larger package, because they don’t take action to change course and stop eating.

Opportunity

Emerging behavioral science may lead to big improvements in employee health engagement and wellness program outcomes. The health management industry provides a vast array of tools, programs and resources for employee health and wellness. It's time to complement these evidence-based approaches with workplace environments that account for our behavioral obstacles and help align employees' actions with their healthy intentions.

Optum has a team of wellness consultants and on-site health promotion specialists who can leverage a variety of benchmarking tools, including the Optum Activate Audit, to evaluate your workplace environment and overall health and wellness strategy. This process will uncover the opportunities your organization has to leverage the work environment to support your employees' best health intentions.

Key considerations

Have you evaluated your physical workplace environment — specifically places where employees make health decisions (moments of truth like the cafeteria, the break room, workstations, elevators)?



Do you have an understanding of how your choice environment at work limits or supports healthy choices?



Have you developed and implemented environmental strategies that will make healthy choices the easiest choices at work?



Does your health management strategy include on-site programs and communications? Can employees easily engage in healthy choices and programs while at work?



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