

Nudging Healthcare's “Tipping Point”

Why we avoid, delay and misuse
care & what to do about it



Executive summary

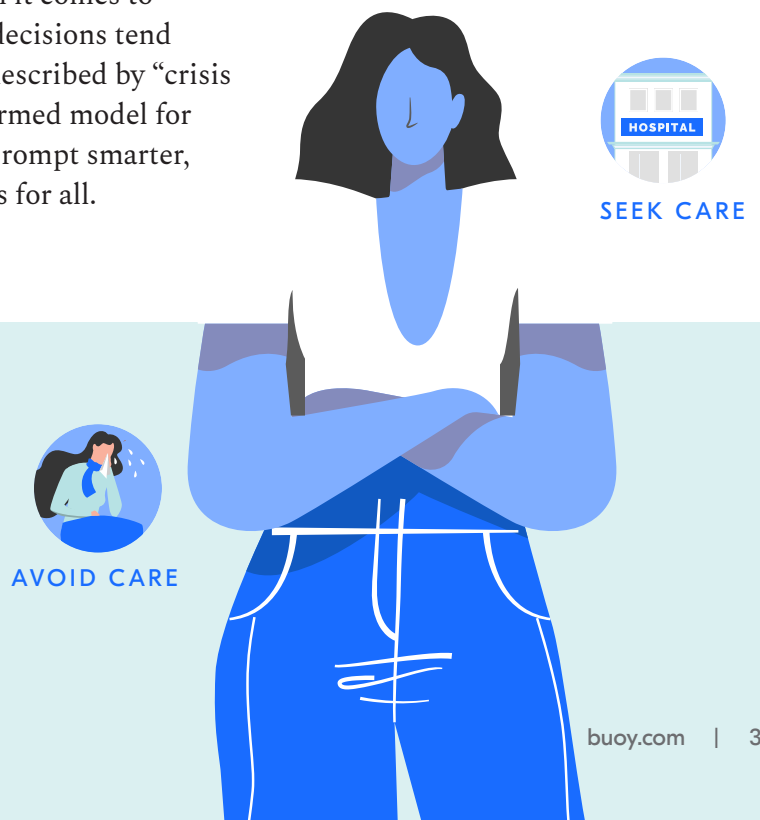
Patient engagement is one of the most critical challenges facing healthcare in the US. How can we best engage people to access the right care at the right time to ensure the best health outcomes at the lowest cost? But patient engagement isn't a one-size-fits-all equation. Patients with chronic conditions require — and thanks to value-based care increasingly receive — intense and consistent levels of outreach and engagement. For the other half of Americans who are generally healthy — until they're not — the picture is very different.

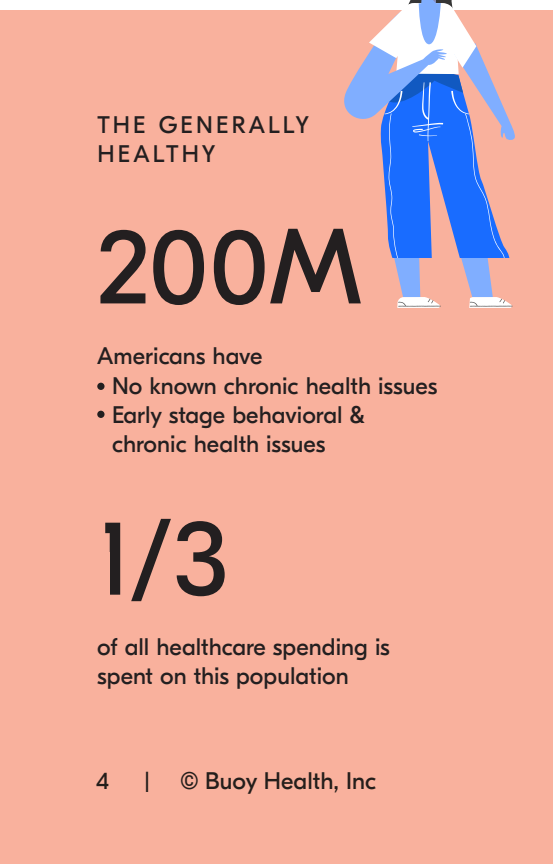
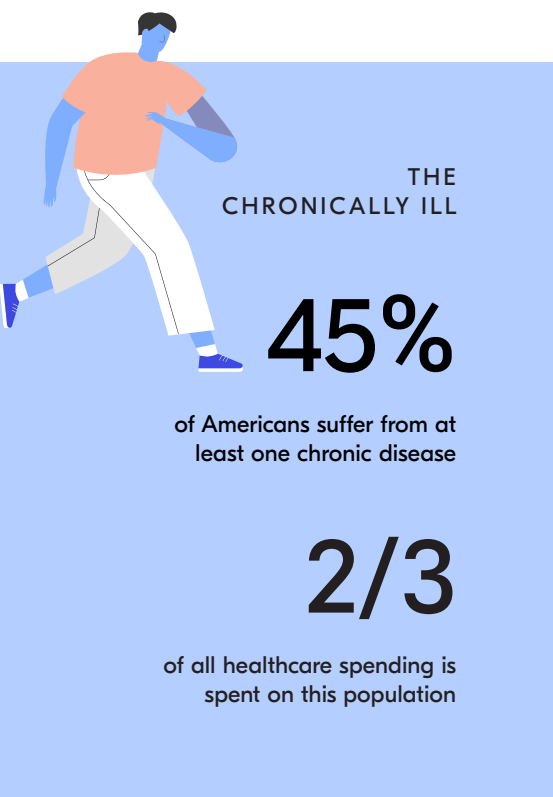
Due to deeply ingrained behavioral biases, those of us who fit in this broad health category (*which includes most millennials, the largest and fastest-growing segment of the US workforce*) tend to either under-react when we get sick, avoiding and delaying essential care. Or, we over-react and land in the ER when we could have stayed home or scheduled an office visit. Either way, our “tipping point” for taking action to seek care is consistently misguided and misplaced. As a result, we miss out on the care we need, when we need it, and drive up costs for the system and employers.

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So what's the fix?

In this whitepaper, we tap into the rich literature of behavioral science to explain why we behave the way we do when it comes to accessing healthcare. We discuss the way healthcare decisions tend to follow a predictable, but irrational, sequence best described by “crisis decision theory.” We then propose a behaviorally informed model for re-architecting healthcare’s “choice architecture” to prompt smarter, better informed, and more timely healthcare decisions for all.





Engaging the disengaged

THE CHRONICALLY ILL: Over the past 10 years or so, the US healthcare industry has directed intense focus and investment on addressing the complex needs of the chronically ill. This makes sense given the devastating health impacts and crippling costs associated with this population. Recent studies estimate that roughly 45 percent of Americans suffer from at least one chronic disease and account for 66 percent of all healthcare spending¹.

In response, hospitals and health plans have ratcheted up their investments in population health management, care coordination, and patient engagement technologies targeted at these high-risk, high-cost Americans. The population health management market alone is projected to reach \$45 billion by 2021, up from \$13 billion in 2016². This rush of interest and innovation has led to an explosion of digital apps and services targeted at engaging patients living with diabetes, heart disease, behavioral health issues, and other debilitating diseases.

As a result, the chronically ill are more likely than ever to be in a managed care program — tracking vitals, remotely monitored, receiving calls and text reminders for appointments; Hyper-engaged in their care, in other words. This is of course good and welcome news. The bad news is that there's another half of the American population that is disengaged, flying under the health system's radar, and poorly equipped when they inevitably find themselves confronting sickness.

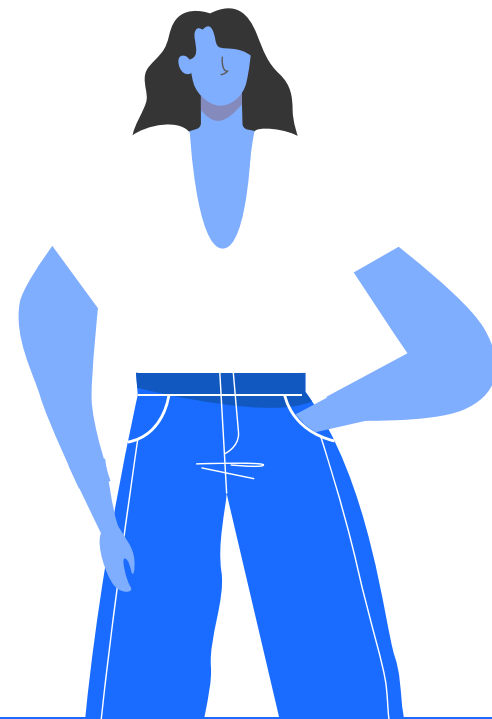
THE GENERALLY HEALTHY: This “generally healthy” population represents about 200 million people who cost the health system over \$400 billion. While most have no known chronic health issues, close to a third have early stage conditions that, left unchecked, will lead to chronic illness. For the average medium to large employer, the majority of employees tend to fall into this bucket. Because they are mostly healthy, they are more focused on their families, careers and social lives than they are on healthcare. They may be less likely than the chronically ill to have a primary care doctor, less informed about their benefits, and less prepared with a course of action when sickness strikes. Millennials are especially disengaged from the healthcare system, suggesting mounting concerns as this demographic ages.

Why should we be concerned about the healthcare habits of this generally healthy population?

Well, for one, despite all efforts, trends indicate that a significant portion of today's healthy-yet-disengaged will become tomorrow's chronically-ill super-users. And studies have shown that healthcare habits developed at a young age are predictive of health in later life. One study of nearly 15,000 people found that the odds of adverse adult health conditions were 13 to 52 percent higher among those who reported unmet health needs earlier in life³.

Second, opting out of or postponing professional care leads to downstream health impacts and costs from delayed diagnosis and treatment. This has been particularly well documented in the pathways of cancer and other malignant diseases.

Finally, this population's deep-seated lack of comfort and familiarity with the healthcare system means they lack the muscle memory to guide smart choices when sickness strikes. When they do get sick, they tend to either under-consume by delaying care or self treating when they should seek professional help. Or they over-consume and go to the emergency room, adding to the staggering \$32 billion spent annually in the US on avoidable ER visits⁴.



Sorry not sorry

THE HEALTHCARE HABITS OF MILLENNIALS

For this demographic, seeing an actual doctor is a last resort, not a first line of attack. As Dr. Karen Soren, director of adolescent medicine at New York Presbyterian Morgan Stanley Children's Hospital, put it in a recent article on the subject, "a lot of young adults feel they have absolutely no time to go to the doctor...and they feel healthcare is relatively expendable."

75%

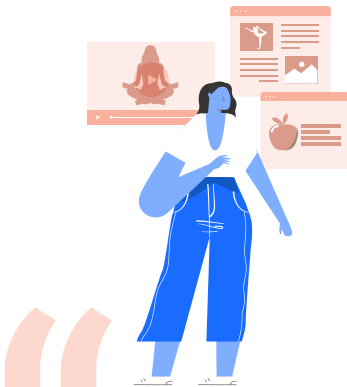
of the global workforce will be comprised of millennials by 2025 (people born between 1980 – 2000)⁵

20%

less likely than other age groups to have a primary care doctor and are more inclined to avoid and postpone care⁶

36%

say they would treat themselves at home before seeking professional care



Exercising regularly, eating right and sleeping well are good habits to develop, but none of them prepare us for what to do when we actually get sick.

Wellness solutions won't cut it

The most common response of the healthcare system to the needs of the generally healthy has been to ply them with workplace wellness programs and apps. Unfortunately, study after study has shown that these programs don't improve employee health outcomes or reduce utilization and spend^{7,8}. The reason for this is simple.

Exercising regularly, eating right and sleeping well are good habits to develop, but none of them prepare us for what to do when we actually get sick. In fact, they may even cause us to confuse “fitness” for health and put off necessary care.

To design interventions and applications that will nudge us to seek the right care at the right time, we first need to understand the behavioral drivers that cause us to consistently go against our self-interests.

Why we avoid, delay, under- and over-use care

Behavioral economists have long since dispatched with the notion that human decision-making is guided by rational judgment. Instead, they've shown that our brains are held hostage by a wide range of cognitive biases that lead us to be “predictably irrational” as Dan Ariely has put it — and act against our self-interest⁹.

Nowhere is this more at play than in healthcare. Despite ample encouragement, public shaming, and often the best of intentions, people regularly miss flu shots, postpone medical appointments, fail to take medications, and otherwise do the opposite of what they know they should. In a national survey, nearly 1/3 of Americans — including patients with serious conditions — reported avoiding the doctor¹⁰. Seventeen percent of patients diagnosed with rectal tumors had waited more than a year to seek care after noticing symptoms, with some delaying care up to five years. Despite its importance — and in some ways because of it — healthcare tends to be something we'd do almost anything to avoid. A 2019 Cleveland Clinic survey looking at barriers to care among men found that 72 percent would rather do household chores, like cleaning the bathroom, than go to the doctor — with 77 percent preferring to go shopping with their spouse or significant other¹¹!

Most explanations of healthcare delay and avoidance have focused exclusively on structural barriers, namely access to insurance coverage and cost barriers. But a major NIH study conducted by Jennifer M. Taber and colleagues in 2015 of nearly 8,000 Americans showed that the reasons are both more varied and more tied to behavioral biases than previously recognized.

Using data collected as part of the Health Information National Trends Survey, the researchers found that reasons for avoiding care grouped into three broad categories:

1 LOW PERCEIVED NEED OF CARE

People determine they're not sick enough or expect their condition to improve without care.

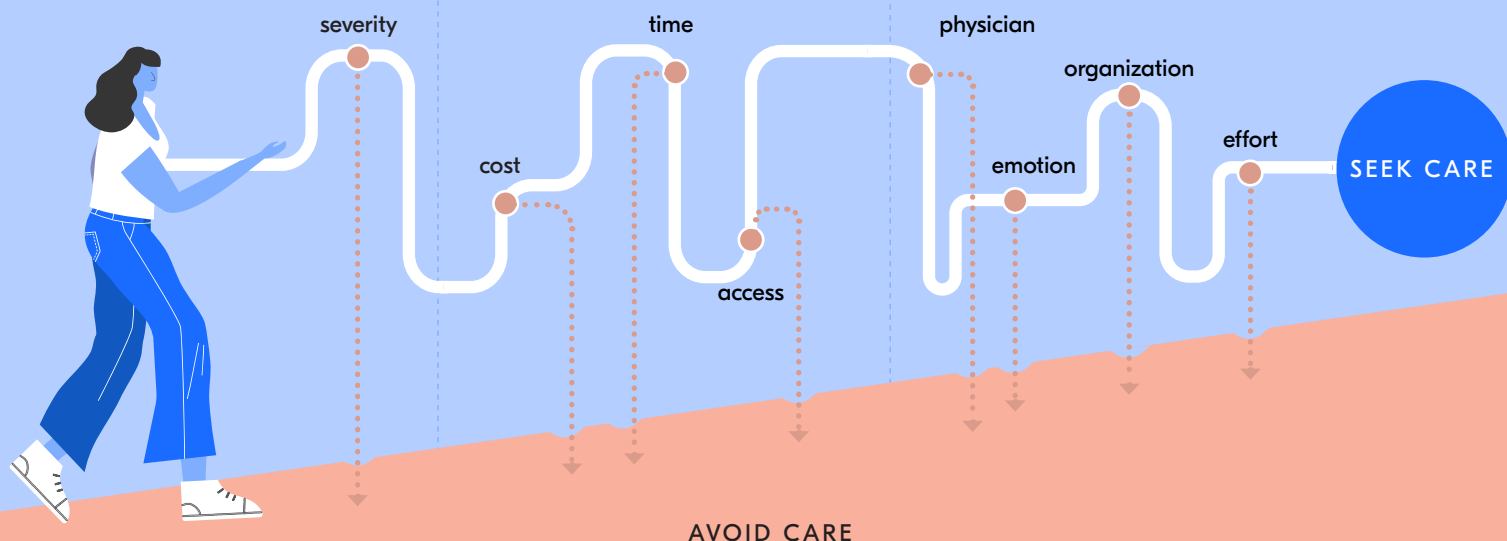
2 TRADITIONAL BARRIERS TO CARE

People perceive their access to care is limited due to insurance, cost, etc.

3 UNFAVORABLE EVALUATIONS OF SEEKING MEDICAL CARE

People find their care options undesirable based on prior experiences.

REASONS FOR HEALTHCARE DELAY AND/OR AVOIDANCE



The healthcare decision-making process

The NIH researchers also found that these categories closely mirror the decision-making process known as Crisis Decision Theory¹³, a framework psychologists use to describe and help manage people's response to negative events. According to this theory, people consistently move through three response stages:

1. APPRAISE SEVERITY 2. IDENTIFY OPTIONS 3. EVALUATE OPTIONS

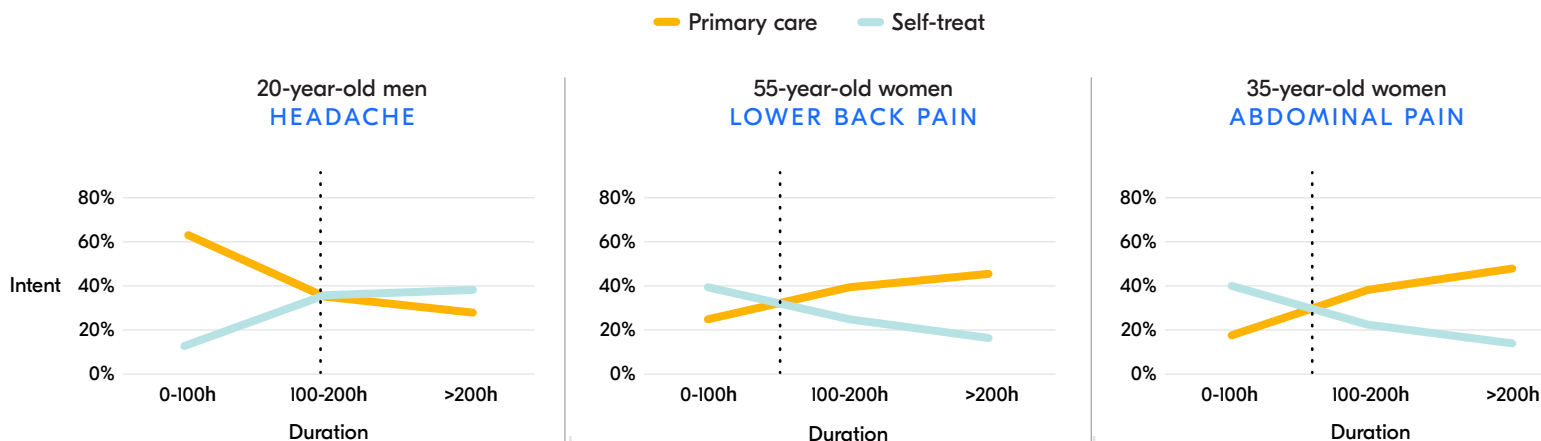
Applying this model to the healthcare decision-making process, people experiencing symptoms will first evaluate their severity with whatever means they have available. They may decide it's not serious and do nothing or self-treat. Or, they may perceive it to be urgent enough to seek care. If they decide to seek care, they might determine the barriers to accessing it are too high and do nothing. Or, based on a misvaluation of severity they might decide the ER is the only option when better options are available. Even if they choose to seek care and correctly identify all of their options, they may still avoid or postpone care due to fear of a bad prognosis, inconvenience and hassle, negative past experiences, or other factors.

Following this model, when people encounter sickness, they shift into crisis decision mode where they must navigate a minefield of choices and cognitive biases before arriving at a decisive "tipping point" for seeking care. Assuming this is the standard process that too often leads people to avoid, delay or over-consume care, what will it take to guide them through the minefield to act sooner and make smart choices?



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OPTIMAL TIME TO INTRODUCE A COVERED SERVICE¹⁴



Redesigning healthcare’s “choice architecture” to prompt smart decisions

Behavioral economists looking to influence decision-making begin with the assumption that people are irrational, prone to cognitive biases, and inclined to act against their self-interests. Rather than waste their time attempting to change human nature, they instead alter the “choice architecture,” or ways choices are presented to people. This notion of designing environments that “nudge” people to make choices that will improve their lives was made famous by economist Richard Thaler and law professor Cass Sunstein¹⁵ and has since been applied successfully in the world of finance, government, healthcare and beyond.

WHAT MIGHT IT LOOK LIKE TO REDESIGN THE CHOICE ARCHITECTURE BEHIND HEALTHCARE DECISION-MAKING?

	1. APPRAISE SEVERITY	2. IDENTIFY OPTIONS	3. EVALUATE OPTIONS
BEFORE	 <ul style="list-style-type: none"> • Patients lack ability to quickly and easily evaluate their symptoms and assess risk in the moment of concern • 72% turn to Google, leading to misinformation, fear and over-reaction¹⁶ 	 <ul style="list-style-type: none"> • Patients lack awareness of the right care option (i.e., office visit, urgent care, virtual consult) for their condition, and their associated benefits and coverage • They are confused about their choices or anticipate cost or access barriers and either postpone care or end up in the ER unnecessarily 	 <ul style="list-style-type: none"> • Lacking a clear assessment of their symptoms or a good understanding of care options, patients default to fear, anxiety and worst-case scenarios • They avoid or postpone necessary care, causing downstream complications and added cost
INTERVENTION	 <p>Deliver personalized, curated information at the moment of concern to help them evaluate symptoms and accurately assess severity</p>	 <p>Provide personalized care options and recommendations at the decision point reflecting their benefits and coverage</p>	 <p>Put patients in control and at ease by giving them choices to evaluate and an organized plan of action to follow</p>
AFTER	 <p>Patients get immediate and personalized assessment of risk, prompting them to act sooner and more wisely</p>	 <p>Patients confidently opt for the appropriate level of care matched to the severity of their symptoms and to their benefits</p>	 <p>Patients are less anxious and more encouraged to follow through on care</p>

Currently, people lack the in-the-moment guidance they need to seek out the right care at the right time. As discussed earlier, wellness programs and apps do nothing to prepare us for what to do when we get sick. Other services and information sources, when available, tend to be scattered and disconnected from the point of decision-making. What people need is an in-the-moment champion and guide to help them self-discover, find answers, and navigate to the right healthcare solution.

Buoy Health: An intelligent guide to proactive care

At Buoy Health, we know that getting sick can be a lonely and worrisome experience. You want well-informed answers, an easy plan of attack, and the comfort of knowing you're taking the right steps to get the best care for you and your family.

At nine million users and growing, Buoy provides personalized care at scale. Its artificial intelligence symptom checker — powered by a sophisticated learning network — listens to consumers to understand their concerns and assess risk. Buoy then identifies the best options for care and guides patients to follow through and take action. The result? Smart, timely healthcare decisions that not only give consumers peace of mind but save money, reduce utilization, and get people healthy faster.

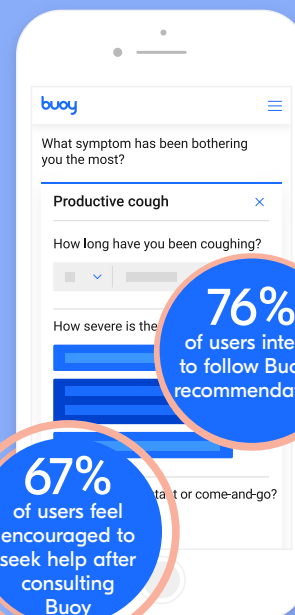


When you get sick today, you have to become both a medical student and an insurance expert to navigate the healthcare system. Buoy Health is here to change that.

With Buoy, getting better actually feels better. Whether you're chatting about symptoms with Buoy Assistant or researching your benefits through a personalized dashboard, Buoy makes self-diagnosis and navigating the healthcare system simple and easy.

For employers, Buoy can be custom-configured to show benefits information and wellness programs, guide employees to in-network providers, and fully integrate with other health portals — providing a single, simple destination for employee wellbeing.

Want to learn more? Visit buoy.com



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