

Big Health

Add Sleepio
from Big Health
to achieve your
productivity goals

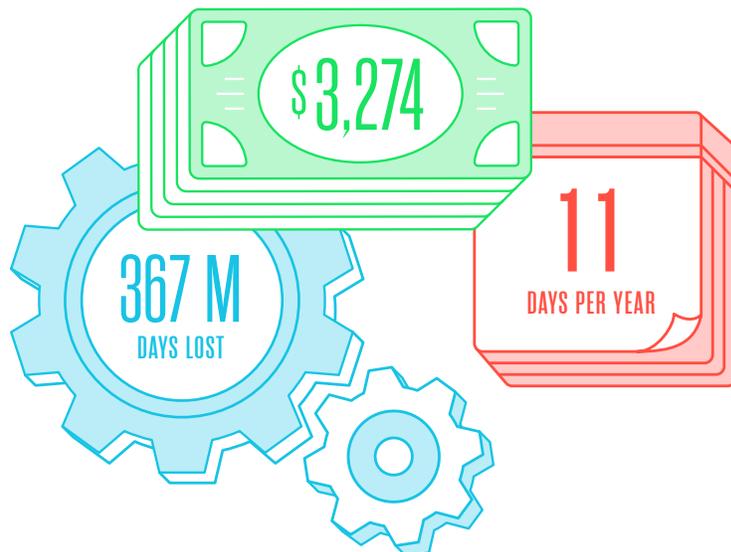


Summary

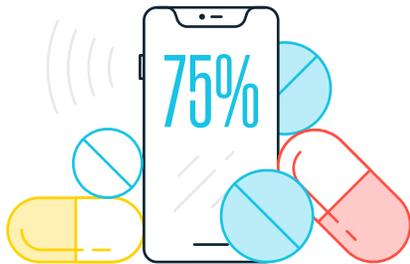
This business case examines the financial and operational impacts of sleep-related problems on employee performance. It also looks at the approximate percentage of the workforce that needs treatment but is not receiving it, and the barriers that are reinforcing that reality. In this paper we examine the challenges employees encounter with traditional treatment options for insomnia, leaving many of them in a “gap” where they’re unable to access safe and effective treatments that meet their needs. Digital therapies such as Sleepio can eliminate this gap by providing an interactive therapy that is available 24/7 on a mobile device, enabling employees to engage in therapy at a time and place of their choosing. Based on interactive techniques developed by our world-leading expert cognitive behavioral therapists, Sleepio adapts to a person’s unique needs to address the root causes of poor sleep and achieve lasting clinical improvement in insomnia.

Financial appraisal

On an annual basis, the US loses an equivalent of **367 million days of lost workplace productivity** due to insufficient sleep.¹ Studies have shown that an employee suffering from insomnia loses **over 11 days per year due to presenteeism** (failing to fully engage with one's work) and absenteeism (persistent unplanned absences), resulting in **\$3,274 of lost productivity costs per employee per year.**¹



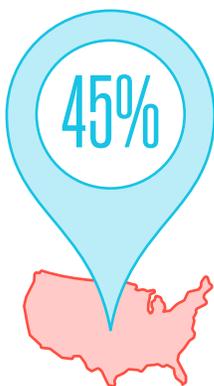
Approximately 67% of individuals in the US do not receive treatment²



Insomnia symptoms are associated with increased presenteeism, and are a strong predictor of work-place productivity.³ Studies have shown that sleep deficiencies lead to difficulties making decisions, solving problems, regulating emotions and behaviors, and coping with change.⁴ For employers this can lead to decreased productivity, more organizational conflict and higher absenteeism. While on average over 20%¹ of employees meet the criteria for an insomnia diagnosis,¹ far fewer receive adequate treatment due to low awareness, stigma, and lack of access to high quality care. Furthermore, evidence suggests that insomnia significantly impacts other physical and mental health conditions. Studies have shown that people suffering from a chronic health condition such as diabetes, heart disease, obesity etc., who also develop insomnia, the interaction of the two illnesses can exacerbate the chronic condition, making it more difficult to treat.⁵

The problem is that traditionally, insomnia has been treated through medication, talk therapy or a combination of both. While medication is often the most accessible of the two, studies suggest that **75% of people prefer a non-drug option.**⁶ There are several reasons why people may feel this way:

- Fear of side-effects or potential adverse reactions
- Concerns over medication dependency
- Medication use may conflict with personal values, attitudes and beliefs



Furthermore, medication is not the recommended first-line of treatment.⁹ Many of those that can't or choose not to be treated with medication, have been referred to talk-therapy, which presents access issues. Travel distance, costs, preference, perceived stigma of therapy and a shortage of therapists – specifically those training in treating insomnia – all present challenges to accessing this form of in-person treatment,⁷ with the underinsured being particularly at a disadvantage. While technology has been able to solve for some of these barriers by enabling talk-therapy treatment to be conducted via mobile devices, the shortage of mental health professionals in the US remains an issue. It is estimated that **approximately 45% of the US population live in areas with a shortage of mental health professionals,** and an estimated 7,500 extra mental health professionals would be needed to address this shortage.⁸

How to keep treatment within reach



-36.8%
DEPRESSION

-36.5%
ANXIETY

+12.8%
EMOTIONAL
WELL-BEING

The first-line treatment for insomnia is cognitive behavioral therapy (CBT).⁹ CBT programs are traditionally administered by medical professionals in person, but the shortage of these providers can make this treatment difficult to find. For those who do manage to find a provider, their health plans may cover only a certain number of visits or none at all, leaving the employee with hefty out-of-pocket costs. To address these barriers, effective digital CBT-I solutions known as “digital therapeutics” have been developed to provide a scalable, accessible, stigma-free option to bridge the gap in mental health coverage.

Since 2011, Big Health has been offering the leading CBT-I digital therapeutic solution Sleepio. In a placebo controlled study, **Sleepio was shown to improve sleep in 76% of study participants.**¹⁰ In one of the largest randomized control trials of a mental health solution, Sleepio was shown to improve not only insomnia, but participants also reported secondary impacts on **depression (-36.8%), anxiety (-36.5%), and overall emotional well-being (+12.8%).**¹¹ In another clinical trial where 40% of employees reported that sleep interfered with their productivity, after using Sleepio this number fell by 15%.¹² Big Health understands that the need for high-quality mental and behavioral health care affects us all regardless of race or ethnicity, socioeconomic status, ZIP code, or other demographic, but treatment options haven't kept pace with the generational mindshift. It is estimated that 73% of today's workforce was born after 1965¹³ and can be categorized as Generation X (33%), Millennials (35%) or Generation Z (5%). These tech savvy individuals have a fundamentally different approach to health care, preferring digital interactions over in-person visits.¹⁴ This is why, unlike other digital therapeutics on the market, Big Health has made Sleepio available as an “over-the-counter” therapy. By pairing Sleepio with your existing medication management and talk-therapy treatments, you can provide your entire workforce the care they need, through a modality they can connect with when, where and how they want it.

Choose Big Health for big outcomes — A case study¹⁴

\$656 
TOTAL COST SAVINGS

\$368 
MEAN DECLINE IN
ABSENCE-RELATED
LOSSES

\$3.3M 
TOTAL DOLLAR
BENEFIT

A health economist from Johns Hopkins University, Dr. Michael Darden, worked with a national retail chain that employs more than 350,000 individuals to determine whether improving insomnia via Sleepio had an effect on cost drivers for the company in terms of overall health care expenditures, on-the-job productivity, and absenteeism. Using claims data, he sought to answer the key question: “Is there a cost benefit of investing in a digital therapeutic for insomnia at a national retail chain with a diverse employee population?” More than 5,000 employees participated in the study over a 24-month period. These were his findings:

- **\$656 total cost savings (i.e., health care and productivity) per Sleepio user, per year**
- **\$368 mean decline in absence-related losses per Sleepio user, per year**
- **\$3.3M total dollar benefit for all employees that used Sleepio**

The results demonstrated that Sleepio users were more productive, had fewer absences, and had lower health care costs compared to the control group, which resulted in a total savings for the company of over \$3 million.¹⁵

Disclaimers

In accordance with FDA’s current Enforcement Policy for Digital Health Devices for Treating Psychiatric Disorders During the Coronavirus Disease 2019 (COVID-19) Public Health Emergency, for patients aged 18 years and older, who are followed by and diagnosed with insomnia disorder by a medical provider, Sleepio can be made available as an adjunct to their usual medical care for insomnia disorder. Sleepio does not replace the care of a medical provider or the patient’s medication. Sleepio has not been cleared by the U.S. Food and Drug Administration (FDA) for these indications.

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DOC-1612 Effective Aug 2022

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