

# Research *Brief*

*The Cost of*  
Mental  
Health

2021

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Mental Health



ginger

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# *The Cost of* Mental Health

Mental health poses a critical public health issue in the US and globally. In 2018, almost one in five adults in the US experienced mental illness <sup>1)</sup>. Beyond clinically diagnosed mental health conditions, there is a growing need for support across the spectrum including sub-clinical levels of stress and anxiety. According to a 2019 US workforce survey, 83% of employees reported experiencing stress on a regular basis and 50% reported missing one or more days of work because of behavioral health issues. <sup>2)</sup> Thus, this mental health burden translates into a significant social and economic burden: depression alone is estimated to cost more than \$210 billion in the U.S.. <sup>3)</sup>

# 1 Key Findings — The Link *between* Mental Health *and* Physical Health

The link between mental health and physical health is well documented. Mental health disorders – most often depression and anxiety – are strongly associated with the risk, occurrence, and outcome of serious chronic conditions such

as diabetes, hypertension, stroke, heart disease, and cancer. Mental health disorders often precede chronic disease; and, chronic disease can intensify the symptoms of mental health disorders – creating a cycle of poor health.

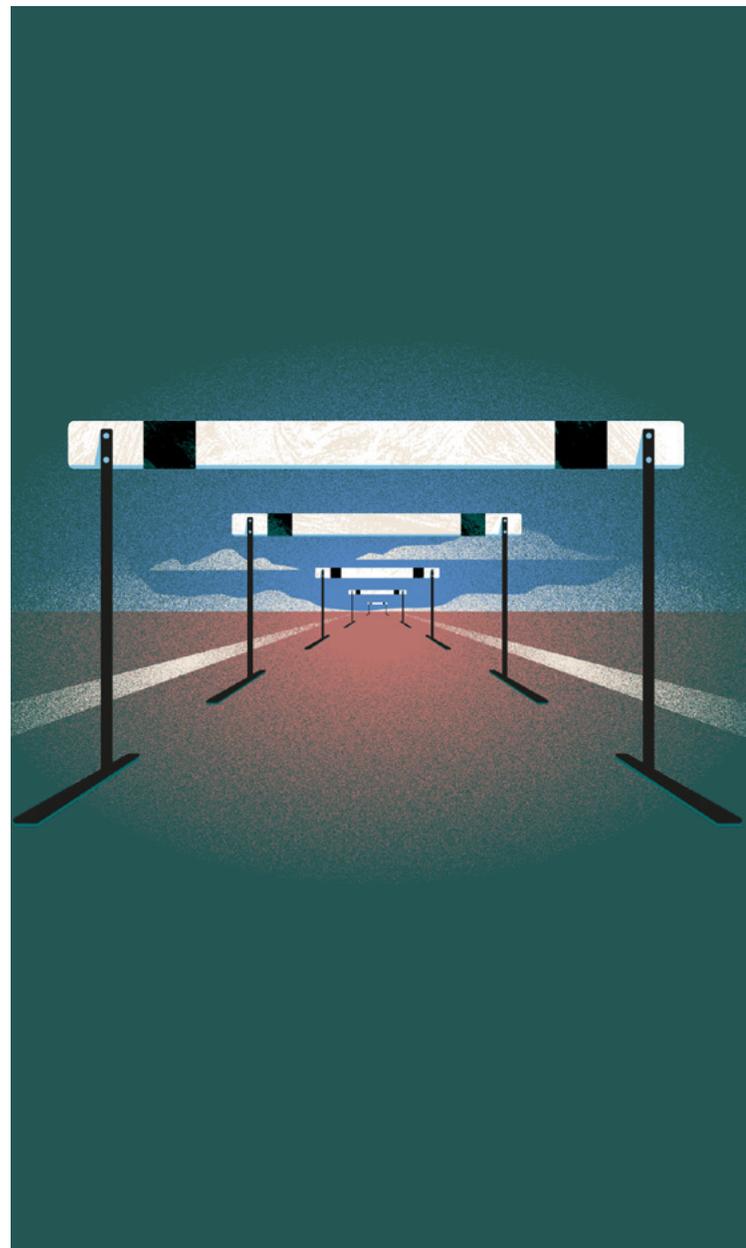
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## EXAMPLES

Medical costs for insureds with chronic medical and comorbid behavioral health (BH) is **2-3 times higher** than those without BH conditions, resulting in an estimated additional cost of **\$406B** in US to insurers, the majority of which is not for behavioral health care.<sup>4)</sup>

Depression is twice as prevalent among persons with diabetes and persons with diabetes and depression experience total cost of care that is **4.5x higher** than for those without depression.<sup>5)</sup>

The relative risk for developing heart disease in individuals with depression or depressive symptoms is **1.6x greater** than among non depressed persons, which is higher than the risk conferred by second hand smoke. Further, persons with a history of major depression are **4x as likely** to have a Myocardial Infarction (MI) Heart attack.<sup>6)</sup>



# 2

## Key Findings — The Cost of Mental Health

Previous studies have demonstrated an association between mental health and economic outcomes. These studies generally classify economic out-

comes into direct costs (medical and prescription costs) and indirect costs (work productivity).

ORGANIZATION	KEY FINDINGS
<b>Janssen and Kantar Health</b>	Individuals with more severe depression had higher overall work productivity impairment, higher direct and indirect costs, and higher HRU compared with patients with less severe depression
<b>Blue Cross Blue Shield (BCBS)</b>	Behavioral health conditions are expected to be the <u>largest drivers of healthcare costs</u> among millennials over the next decade.
<b>Milliman</b>	Individuals with a treated behavioral health condition <u>cost two to three times as much</u> as those without a behavioral health condition across all market segments (commercial, Medicare, Medicaid).
<b>Deloitte UK</b>	The ROI of workplace mental health interventions is <u>overwhelmingly positive</u> . Estimates from the literature range from <u>0.4:1</u> to <u>9:1</u> with a median of <u>4.2:1</u>
<b>One Mind</b>	Major depression costs a hypothetical employer with <u>10,000</u> employees more than <u>\$17.2 million</u> annually.

# The *Ginger System* Measurement

Ginger supports individuals across the continuum of need, including “pre-clinical” populations. As a care provider, Ginger captures both process and outcomes data to provide key insights into quality of care and to understand a member’s progress and journey through the system. Below is a summary of Ginger’s approach to measuring impact, including example metrics and rationale:

## THE GINGER APPROACH

CATEGORY	METRICS	RATIONALE
<b>Access</b>	<ul style="list-style-type: none"><li>• Coach response time (minutes)</li><li>• Time to first available clinical appointment (hours)</li><li>• Time to first available clinical appointment and follow-up (days)</li><li>• Barriers to access or receiving care</li></ul>	Industry wait times are weeks to months. Delaying access to care can lead to condition deterioration and slower recovery. <sup>7)</sup>
<b>Engagement and Utilization</b>	<ul style="list-style-type: none"><li>• Number of coaching sessions</li><li>• Number of clinical appointments</li><li>• Number of interactions with app content</li><li>• No shows and cancellations</li></ul>	The majority of individuals diagnosed with depression do not initiate treatment. Premature discontinuation of care is also an ongoing problem. <sup>8)</sup> These metrics can also provide insights into dosing.

CATEGORY	METRICS	RATIONALE
<b>Member Satisfaction</b>	<ul style="list-style-type: none"> <li>• Coach star rating</li> <li>• Clinical star rating</li> <li>• NPS</li> </ul>	<p>Patient experience and satisfaction are an important part of holistically assessing health care quality. In psychotherapy, there is particular evidence that a patient's preference, perceptions, and therapeutic alliance are correlated with clinical outcomes.<sup>9)</sup></p>
<b>Clinical Improvement</b>	<ul style="list-style-type: none"> <li>• PHQ score change</li> <li>• GAD score change</li> </ul>	<p>PHQ and GAD are well-validated in the general population for depression and anxiety respectively.<sup>10)</sup></p>
<b>Quality</b>	<ul style="list-style-type: none"> <li>• Clinical QA report</li> </ul>	<p>QA monitors diverse data sources to ensure quality care is taking place and recommend adjustments accordingly.</p> <p>Even those who are fortunate enough to access treatment in the US are often not receiving evidence-based care. In the US, almost <u>70 percent</u> of individuals do not receive adequate care.<sup>11)</sup></p>

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### RETURN ON INVESTMENT

ROI analyses are a useful tool to assess the costs and benefits of different interventions because they extend beyond health benefits, expressing all benefits in monetary terms. As ROI analyses are subject to different assumptions and methodologies, they often include sensitivity analyses, with range of projected outcomes. Additionally, it is important to note that health management programs tend to generate returns over longer term horizons and there are often unrealistic expectations about the magnitude of short-term returns. A 2014 Optum report notes that organizations often anticipate savings great-

er than 3x program costs, which is much higher than returns on other employer investments. Additionally, because ROI estimates are averages, a program will result in higher-than-average savings for some participants, and lower than-average savings for others.<sup>12)</sup> Researchers have also highlighted and criticized the tendency to heavily focus on ROI for chronic illness but rarely mention it for other health conditions, likely due to the structure of our current healthcare system and reimbursement incentives.<sup>13)</sup>

# Future Directions

Ginger is actively working on a range of studies that begin to address ROI. In the near term, we are conducting retrospective observational studies of internal survey data and collaborating with a long term employer client on historical claims data analysis. Additionally, Ginger welcomes opportunities to complete structured studies and program evaluations in collaboration with its customers.

## Appendices

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|--|---|---|--|
| 01 <a href="https://www.samhsa.gov/data/report/2018-nsduh-annual-national-report">samhsa.gov/data/report/2018-nsduh-annual-national-report</a>   | 05 <a href="https://www.cdc.gov/pcd/issues/2005/jan/04_0066.htm">cdc.gov/pcd/issues/2005/jan/04_0066.htm</a>  | 08 <a href="https://pubmed.ncbi.nlm.nih.gov/29423624/">ncbi.nlm.nih.gov/pubmed/29423624</a>   | 10 <a href="https://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/patient-health">www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/patient-health</a> |
| 02 <a href="https://go.ginger.com/annual-behavioral-health-report-2019">go.ginger.com/annual-behavioral-health-report-2019</a>   | 06 <a href="https://www.cdc.gov/pcd/issues/2005/jan/04_0066.htm">cdc.gov/pcd/issues/2005/jan/04_0066.htm</a>  | <a href="https://pubmed.ncbi.nlm.nih.gov/22506792/">ncbi.nlm.nih.gov/pubmed/22506792</a>  | <a href="https://pubmed.ncbi.nlm.nih.gov/18388841/">ncbi.nlm.nih.gov/pubmed/18388841</a>   |
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| 03 <a href="https://ajmc.com/journals/supplement/2019/economic-burden-mdd-analysis-healthcare">ajmc.com/journals/supplement/2019/economic-burden-mdd-analysis-healthcare</a>   | <a href="https://mhanational.org/issues/men-tal-health-america-access-care-data">mhanational.org/issues/men-tal-health-america-access-care-data</a>                         | <a href="https://www.insights.ovid.com/cross-ref?an=00043764-201910000-00004">insights.ovid.com/cross-ref?an=00043764-201910000-00004</a>   | 12 <a href="https://optum.com/content/dam/optum/resources/whitePapers/roi-perspective-wp.pdf">optum.com/content/dam/optum/resources/whitePapers/roi-perspective-wp.pdf</a>   |
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| 04 <a href="https://www.milliman.com/en/insight/potential-economic-impact-of-integrated-medical-behavioral-health-care-updated-projections">milliman.com/en/insight/potential-economic-impact-of-integrated-medical-behavioral-health-care-updated-projections</a> | <a href="https://pubmed.ncbi.nlm.nih.gov/361004/">ncbi.nlm.nih.gov/pmc/articles/PMC1361004/</a>   | <a href="https://ibhpartners.org/get-started/client-experience-toolkit/assessing-patient-experience/">ibhpartners.org/get-started/client-experience-toolkit/assessing-patient-experience/</a> |  |
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**Ginger brings high-quality mental health support within seconds to those in need. Through the Ginger app, members can connect with our team of coaches via text, 24/7, 365 days a year. For those in need of additional support, a therapist or psychiatrist can be added to their care team for video sessions. Over half a million people have access to the Ginger on-demand mental health system through our work with employers, health plans, and other partners.**

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**To learn more about how Ginger can support your workforce, contact us at [ginger.com/contact](https://ginger.com/contact).**

## IMPRINT

**Publisher** **Ginger**  
**116 New Montgomery St, Ste 500**  
**San Francisco, CA 94105**

**January 31 2021**

