Analysis of Spring Health's Impact on Health Plan Claims Costs

Study Results from 2021

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Report Preparation and Overview

The purpose of this report is to review the financial outcomes of several Spring Health employer groups by comparing healthcare spend statistics of members who have engaged with Spring Health to a matched control group coming out of the IBM MarketScan® Research Database. Any analysis, interpretation, or conclusion based on MarketScan data is solely that of the authors and not International Business Machines Corporation.

This analysis was conducted by Santa Barbara Actuaries (SBA), an independent research and consulting firm, using standard practices for outcomes evaluations of this nature, which are described in detail in the methodology section of this report. In conducting this analysis, we have relied upon deidentified claims and eligibility data supplied by Spring Health on behalf of the employer groups being studied. The accuracy of this report and its conclusions relies on the accuracy of the data supplied to us. We have not audited the source of the data, but we have reviewed the data for reasonability and consistency and have no reason to believe the data is incomplete or inaccurate.

Study design, analysis, review, and authorship of this report were completed by the following SBA team members:

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Executive Summary

Our analysis of financial outcomes found that members who engaged with Spring Health had lower net healthcare spend than their MarketScan matched control. Specifically, members who engaged with Spring Health had net medical and pharmacy savings (gross savings minus Spring Health care costs) of $63 per participant per month (equivalent to $693 per person per year[1]) compared to their matched control, representing a savings rate of 12%. This result was based on matching on demographics from eligibility and diagnoses found only in the medical claims data. Since mental health disorders are generally underdiagnosed in the traditional medical claims system, and to compare this analysis to similar reporting in the marketplace, we performed a sensitivity analysis that supplemented the matching process with additional diagnostic data in the baseline period from Spring Health. Using these additional diagnoses for matching purposes resulted in a calculated net savings amount of $199 per participant per month (equivalent to $2,195 per participant per year[1]). The differences in results produced by this sensitivity analysis highlights the issue of insufficient MHSA diagnosis coding and treatment in the standard US healthcare environment. This analysis focused only on medical and pharmacy claims-based health plan costs and does not address impacts from the intervention on disability spend or productivity gains.

1) Since we did not have a complete 12 month exposure period for all clients, per person per year savings are calculated by multiplying the per participant per month savings rate times an average exposure period of 11 months to account for standard termination rates

Introduction

Spring Health partners with employers to break down barriers to mental health care for their employees and family members by combining precision mental health technology, human care navigation and rapid access to mental health care. A care navigator is assigned to work 1:1 with every engaged member through their entire mental health journey. Spring Health utilizes data from members to match the right type of care (e.g., psychotherapy, medication management, digital psychoeducation content) at the right time for each member and to track clinical and emotional outcomes for every member. Tracking outcomes across the entire care solution allows Spring Health to ensure high-quality care delivery. In addition to the significant clinical outcomes achieved by this program (Bondar et al., 2022), the results of this study show preliminary evidence that the Spring Health program can significantly impact the total health care spend of engaged members.

SBA was commissioned to perform a study on financial outcomes generated by the Spring Health intervention using data from three employers. Spring Health enrolled members were matched to an external comparison group from the IBM Marketscan database, which includes hundreds of characteristics from millions of individuals broadly representative of the employed population in the United States. To ensure match quality between the Spring Health group and the comparison group, individuals were matched on a set of clinical and demographic characteristics known to relate to overall healthcare spend.

Data Sources

Spring Health Customer Data

The study group data consists of incurred medical claims and eligibility data in 2020 and 2021 from three self-insured employer-customers of Spring Health. Experience from 2021 was used as the evaluation period while 2020 was used as the baseline period for matching purposes. The specific time ranges of claims available for run out purposes varied by client and are detailed in the Appendix. As such, calculations were conducted, and results reported, on a member month basis. The data set includes complete claims and eligibility data on both members who engaged with Spring Health as well as members who did not engage with Spring Health. Table 1 provides high level financial statistics for the aggregate Spring Health client population. We reviewed the data for reasonability and have no reason to believe that the data is incomplete or inaccurate.

IBM MarketScan Data

The data used to develop the matched control groups comes from the IBM MarketScan® Research Database, including claims incurred between January 1, 2018, and December 31, 2020, that were paid through late 2021. This database contains nationally representative claims and eligibility data for millions of commercially-insured members covered by various employer-sponsored health and benefit plans.

Table 1: Spring Health Aggregate Client Data Summary - 2021

Population	Percent of Members with claims	Total Allowed PMPM	Paid-to-Allowed Ratio
Spring Health Eligible Population	85.4%	$506	81%
National Benchmark[1]	85.3%	$476	83%

1) The national benchmark is based on 2019 MarketScan data trended forward to 2021 for members between the ages of 13 and 65

Table 2 summarizes the demographic distribution of the study population, the non-engaged population, and the MarketScan matched control for those members who met the study criteria. Members engaging with Spring Health were more likely to be women compared to non-engaged members but the age distribution and chronic condition distribution was fairly equivalent to the total population (the chronic condition distribution can be found in the Appendix).

Table 2: Demographic Distribution

Demographics	Spring Engaged Members Who Met Study Rules	MarketScan Matched Control	Non-Engaged Members
Member Count	222	222	6295
% Female	65%	65%	50%
Average Age	38	39	38
Average Number of Claims-Based MHSA Conditions	0.51	0.50	0.35

Methodology

This study focuses on comparisons of per-member-per-month (PMPM) allowed medical and pharmacy costs between members enrolled in Spring Health and a Marketscan matched control.

Member Eligibility Requirements

We limited the analysis to members who satisfied the following criteria:

- Between 13 and 65 years of age
- Continuously enrolled in the employer's health plan for at least six months in both 2020 and 2021
- Members with the following conditions were removed: cancer, ESRD, organ transplant, and pregnancy
- The study group was defined as members with at least 1 Spring Health therapy or medication management appointment. These members were matched 1:1 to Marketscan members using the Matching Algorithm described below.

Truncation

To reduce the influence of high-cost outlier claims and to account for individual stop-loss coverage that might exist, claimants' annual allowed medical costs were capped at $100,000 in both the study and control groups.

Chronic Conditions and the HHS-HCC Risk Adjustment Model

The Health and Human Services Hierarchical Chronic Condition (HHS-HCC) risk adjustment model was developed by the Centers for Medicare and Medicaid Services (CMS) and RTI International for the individual and small group markets under the Affordable Care Act (Kautter et al., 2014). The model is a concurrent regression model that predicts medical expenditure risk using diagnoses and demographic information extracted from medical claims and eligibility records. The initial HHS-HCC model was developed using an earlier version of the IBM MarketScan database. For each benefit year, CMS makes annual updates to the model and recalculates factor weights by using more recent claims and enrollment data from MarketScan. For each individual, inputs such as age, gender, and disease distribution in the measurement year enable the model to produce a numeric risk score that measures relative plan expenditure liability. In this study, we used the risk scores as a criterion in the member matching process to help provide more robust matching results between the study and control. In this analysis, we used the 2019 HHS-HCC Platinum model to generate a member level risk score.

Member Matching Algorithm

Matching from the Spring Health population to the MarketScan database was performed at a member level based on the closest match for the following criteria in the baseline period:

- Age
- Gender
- State of residence
- Chronic Condition Status
- Direct HHS HCC matching for members with chronic conditions (see Appendix for complete list)
- MHSA Diagnosis Category (see Appendix for complete list)
- HHS-HCC risk score band: on top of matching to the nearest available member with the same set of HCCs, the member match is limited to a matched member with a similar HHS-HCC risk score

Members with more than one eligible matched control member had their matched control member randomly selected from the available list of matched members. All members in the study were directly matched with an appropriate control member.

Since complete 2021 MarketScan data will not become available until late 2022, and to mitigate the COVID impact on medical trend, we matched Spring Health members to a baseline period of 2018 in the MarketScan data, followed those matched members experience into 2019, and then applied a trend rate from 2019 to 2021 to adjust the matched control experience to the study period of 2021. We based this healthcare trend rate on the combination of 1) the 2019-2020 MarketScan trend for a closed cohort that met the study criteria and 2) the 2020-2021 trend based on the Spring Health eligible population. This

combined medical + Rx trend rate from 2019 to 2021 equated to 2.5%. An alternative to applying the trend adjustment would have been to compare the study year, 2021, to the most recent available year in the MarketScan database, 2020. However, because non-COVID medical spend greatly decreased in 2020 due to the exogenous shock of the COVID-19 pandemic and returned to more typical patterns in 2021, we believe that trend-adjusted pre-pandemic data provides a more accurate comparison.

Matching Quality

Match quality in the initial analysis was high based on all observed claims-based characteristics, with the demographic and disease distributions virtually identical between the study and control groups, suggesting that participants in the MarketScan comparison group were comparable to Spring Health members (Table 3). However, because mental health disorders are generally underdiagnosed in the traditional medical claims system, we were concerned that those with mental health conditions were underrepresented in the MarketScan control group relative to the group that actively sought out and engaged in mental health treatment with Spring Health. To gauge the potential bias, we performed a sensitivity analysis where diagnostic data in the baseline period from the Spring Health platform was used to supplement the matching process. The result of including Spring Health diagnoses produces a higher risk matched control (Table 4).

Table 3: Match Quality Using Only Claims Diagnosis Data

Cohort	Matched member count	Average Age	Female %	Average number of chronic conditions - Baseline Year	Average number of Claims Based MHSA condition categories- Baseline Year
Spring Study Population	222	38	65%	0.20	0.51
MarketScan Matched Control	222	39	65%	0.21	0.50

Table 4: Match Quality Using Claims and Spring Appointment Diagnosis Data

Cohort	Matched member count	Average Age	Female %	Average number of chronic conditions - Baseline Year	Average number of Claims Based MHSA condition categories- Baseline Year
Spring Study Population	222	38	65%	0.20	0.51
MarketScan Matched Control	222	39	65%	0.22	0.73

Results

Overall Medical Financial Results

Table 5 displays the overall financial results of the study. Note that reported savings are net in that they include the cost of the Spring therapy sessions that were provided to us by Spring Health. All three clients show savings. In aggregate, net savings are $63 per participant per month (PPPM).

Table 5: PPPM Results

Client	Study/Control	Total Member Count	Allowed Total Medical + Rx PPPM + Spring Session Fees for Study Population	Net Savings PPPM	% Net Savings with respect to control costs
A	Spring Study Population	54	$396	$65	14%
	MarketScan Control		$461		
B	Spring Study Population	74	$572	$74	12%
	MarketScan Control		$646		
C	Spring Study Population	94	$455	$58	11%
	MarketScan Control		$513		
All	**Spring Study Population**	**222**	**$466**	**$63**	**12%**
	MarketScan Control		**$529**		

A major issue with conducting outcomes evaluations on mental health interventions is that mental health issues tend to be significantly under coded in claims data and the ability of most, if not all, general risk adjustment models to fully account for the burden of mental health is questionable, especially when access to care challenges may impact the ability to observe mental illnesses in claims data. At the same time, using additional data sources for coding enhancements in the study group risks biasing results in the other direction, to the extent that receiving the same diagnosis in the control condition reflects higher distress, acuity, or impairment. To gauge the potential size of bias due to under coding mental health disorders and report results using comparable methods to previous studies in the market, we also looked at adding additional diagnosis codes to the study population based on Spring Health encounter data in the baseline period. The result is a material increase in net savings which is shown below in Table 6. When including the supplementary diagnostic data, aggregate net savings were $199 PPPM, which is equivalent to $2,195 in per person per year savings assuming an average member duration of 11 months per year. This savings amount is relatively consistent with other mental health studies in the market except for the

fact that this is a net savings number that accounts for the cost of Spring Health care delivery rather than a gross savings number reported in other similar studies that do not account for the cost of care delivery.

Table 6: PPPM Results for Matching Study Using Additional Spring Diagnosis Codes

Client	Study/Control	Total Member Count	Allowed Total Medical + Rx PPPM + Spring Session Fees	Net Savings PPPM
A	Spring Study Population	54	$396	$201
	MarketScan Control		$597	
B	Spring Study Population	74	$572	$172
	Marketscan Control		$744	
C	Spring Study Population	94	$455	$211
	MarketScan Control		$666	
All	**Spring Study Population**	**222**	**$466**	**$199**
	MarketScan Control		**$665**	

Discussion

This study focused on comparing allowed healthcare spend between an enrolled Spring Health population and a MarketScan control group. The results of this study are applicable to the populations and years analyzed and do not necessarily apply to other years and populations. This study should be considered a demonstration of financial success for employers sharing their health plan claims data with Spring Health who have used Spring Health services along with their specific benefit programs in place today. Any validation of employer-specific savings should be conducted with that employer's actual claims experience. With more Spring Health participants and a longer experience period, we recommend further study to identify changes in utilization patterns resulting from the Spring Health intervention and associated quantification of the sources creating this financial impact.

Limitations

We were not supplied with sufficient longitudinal data to quantify the emergence of savings over longer time horizons. Further work could investigate this in more depth.

Variables that could impact the conclusions in this analysis that may not have fully been accounted for include, but are likely not limited to, the following:

- Differences in coding patterns between the study population and their matched control. We have discussed the issue of under coding of mental health data in medical claims and have looked at results with and without additional diagnoses recorded outside of claims. In addition, matching feature variables from the 2020 baseline disease and demographics of the study group to the 2018 experience of the MarketScan control group may lead to lower risk matches due to greater degrees of coding gaps in 2020 during the Covid pandemic. This would result in artificially lower reported savings.
- Enrollment selection biases leading members to engage with Spring that may have not been picked up by the matching feature variables. This would likely lead to a more conservative matched control and artificially lower reported savings.
- Other program impacts specific to these three employers that may have impacted the study group members that were not similarly impacted in the matched control. Given the consistency in savings rates by employer, we think this would likely not have a significant impact on the reported results.
- Sample size affecting the precision of the calculated outcome. Results shown here are specific only to the study population available and results may change in either direction with a larger sample size.
- Trend projections applied to the control group that may deviate from actual trend differences between the study period and the control period. We believe the 2.5% trend from 2019 to 2021 is a conservative trend rate and the methodology we applied is the most practical given the data we had available. However, using identical time periods would be more ideal.
- Data with payment runout for full calendar year 2021 was not available at the time of this study. Calculating results on a member month basis consistent between study and control should address most duration discrepancies, but it is possible that seasonal patterns at the end of the year could be impacting the reported results.

Conclusion

Results from three sample employer groups provide preliminary evidence that Spring Health has had a material impact on claims spend for the members they have engaged. Consistency in the net savings results across employer groups is an encouraging indication that similar results will materialize for other Spring clients. However, the results reported here are specific to the data supplied, groups included, and time periods analyzed and is no guarantee of future results for other time periods or employer groups.

Appendix

Table A1: Eligibility Data Specifications

Data Field	Definition
Member_ID	unique member identifier
Year	carrier eligibility year
Effective_month	carrier eligibility year month
Engagement_status	Spring Health engagement status: Unengaged = member did not have a non Care Navigation appointment at all during the whole study period; Pre_engaged = member did not have a non Care Navigation appointment yet before the end of the current carrier eligibility year month; Post_engaged = member had a non Care Navigation appointment before the current carrier eligibility year month.
Age	Member age
gender	member gender F = female M = male
state	member geography: state

Table A2: Claims Data Specifications

Data Field	Definition
Member_ID	unique member identifier
Claims_service_begin_date	Incurred service begin date
Claims_service_end_date	Incurred service end date
Paid_date	Paid date
Bill_type	Bill type code where available
Revenue_code	revenue code where available
DX1	ICD10 diagnosis code
DX2	ICD10 diagnosis code
DX3	ICD10 diagnosis code
Procedure_code	HCPCS procedure code
allowed_amount	total allowed amount for claim line
Paid_amount	total paid amount for claim line

Table A3: Date Ranges by Client

Client	Baseline Period (For Member Matching)	Measurement Period
A	1/2/2020 – 12/31/2020	1/1/2021 – 10/31/2021
B	1/1/2020 – 12/31/2020	1/1/2021 – 6/30/2021
C	1/1/2020 – 12/31/2020	1/1/2021 – 11/30/2021

Table A4: Distribution of Chronic Conditions Between Study and Control

Demographics	Spring Engaged Members Who Met Study Rules	MarketScan Matched Control	Non-Engaged Members
Percent of Members with 0 HCC Chronic Conditions	86.0%	86.0%	86.2%
Percent of Members with 1 HCC Chronic Condition	9.5%	9.5%	11.2%
Percent of Members with 2 or More HCC Chronic Condition	4.5%	4.5%	2.6%

Table A5: List of HHS-HCCs Used for Matching Algorithm

HCC	HCC Name
1	HIV/AIDS
2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock
3	Central Nervous System Infections, Except Viral Meningitis
4	Viral or Unspecified Meningitis
6	Opportunistic Infections
8	Metastatic Cancer
9	Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia
10	Non-Hodgkin`s Lymphomas and Other Cancers and Tumors
11	Colorectal, Breast (Age < 50), Kidney, and Other Cancers
12	Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other Cancers and Tumors
13	Thyroid Cancer, Melanoma, Neurofibromatosis, and Other Cancers and Tumors
18	Pancreas Transplant Status/Complications
19	Diabetes with Acute Complications
20	Diabetes with Chronic Complications
21	Diabetes without Complication
23	Protein-Calorie Malnutrition
26	Mucopolysaccharidosis
27	Lipidoses and Glycogenosis
28	Congenital Metabolic Disorders, Not Elsewhere Classified
29	Amyloidosis, Porphyria, and Other Metabolic Disorders
30	Adrenal, Pituitary, and Other Significant Endocrine Disorders
34	Liver Transplant Status/Complications
35	End-Stage Liver Disease
36	Cirrhosis of Liver
37	Chronic Hepatitis

38	Acute Liver Failure/Disease, Including Neonatal Hepatitis
41	Intestine Transplant Status/Complications
42	Peritonitis/Gastrointestinal Perforation/Necrotizing Enterocolitis
45	Intestinal Obstruction
46	Chronic Pancreatitis
47	Acute Pancreatitis/Other Pancreatic Disorders and Intestinal Malabsorption
48	Inflammatory Bowel Disease
54	Necrotizing Fasciitis
55	Bone/Joint/Muscle Infections/Necrosis
56	Rheumatoid Arthritis and Specified Autoimmune Disorders
57	Systemic Lupus Erythematosus and Other Autoimmune Disorders
61	Osteogenesis Imperfecta and Other Osteodystrophies
62	Congenital/Developmental Skeletal and Connective Tissue Disorders
63	Cleft Lip/Cleft Palate
64	Major Congenital Anomalies of Diaphragm, Abdominal Wall, and Esophagus, Age < 2
66	Hemophilia
67	Myelodysplastic Syndromes and Myelofibrosis
68	Aplastic Anemia
69	Acquired Hemolytic Anemia, Including Hemolytic Disease of Newborn
70	Sickle Cell Anemia (Hb-SS)
71	Thalassemia Major
73	Combined and Other Severe Immunodeficiencies
74	Disorders of the Immune Mechanism
75	Coagulation Defects and Other Specified Hematological Disorders
81	Drug Psychosis
82	Drug Dependence
87	Schizophrenia
88	Major Depressive and Bipolar Disorders
89	Reactive and Unspecified Psychosis, Delusional Disorders
90	Personality Disorders
94	Anorexia/Bulimia Nervosa
96	Prader-Willi, Patau, Edwards, and Autosomal Deletion Syndromes
97	Down Syndrome, Fragile X, Other Chromosomal Anomalies, and Congenital Malformation Syndromes
102	Autistic Disorder
103	Pervasive Developmental Disorders, Except Autistic Disorder
106	Traumatic Complete Lesion Cervical Spinal Cord
107	Quadriplegia
108	Traumatic Complete Lesion Dorsal Spinal Cord
109	Paraplegia
110	Spinal Cord Disorders/Injuries
111	Amyotrophic Lateral Sclerosis and Other Anterior Horn Cell Disease
112	Quadriplegic Cerebral Palsy
113	Cerebral Palsy, Except Quadriplegic
114	Spina Bifida and Other Brain/Spinal/Nervous System Congenital Anomalies
115	Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy

117	Muscular Dystrophy
118	Multiple Sclerosis
119	Parkinson`s, Huntington`s, and Spinocerebellar Disease, and Other Neurodegenerative Disorders
120	Seizure Disorders and Convulsions
121	Hydrocephalus
122	Non-Traumatic Coma, Brain Compression/Anoxic Damage
125	Respirator Dependence/Tracheostomy Status
126	Respiratory Arrest
127	Cardio-Respiratory Failure and Shock, Including Respiratory Distress Syndromes
128	Heart Assistive Device/Artificial Heart
129	Heart Transplant
130	Congestive Heart Failure
131	Acute Myocardial Infarction
132	Unstable Angina and Other Acute Ischemic Heart Disease
135	Heart Infection/Inflammation, Except Rheumatic
137	Hypoplastic Left Heart Syndrome and Other Severe Congenital Heart Disorders
138	Major Congenital Heart/Circulatory Disorders
139	Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital Heart/Circulatory Disorders
142	Specified Heart Arrhythmias
145	Intracranial Hemorrhage
146	Ischemic or Unspecified Stroke
149	Cerebral Aneurysm and Arteriovenous Malformation
150	Hemiplegia/Hemiparesis
151	Monoplegia, Other Paralytic Syndromes
153	Atherosclerosis of the Extremities with Ulceration or Gangrene
154	Vascular Disease with Complications
156	Pulmonary Embolism and Deep Vein Thrombosis
158	Lung Transplant Status/Complications
159	Cystic Fibrosis
160	Chronic Obstructive Pulmonary Disease, Including Bronchiectasis
161	Asthma
162	Fibrosis of Lung and Other Lung Disorders
163	Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections
183	Kidney Transplant Status
184	End Stage Renal Disease
187	Chronic Kidney Disease, Stage 5
188	Chronic Kidney Disease, Severe (Stage 4)
203	Ectopic and Molar Pregnancy, Except with Renal Failure, Shock, or Embolism
204	Miscarriage with Complications
205	Miscarriage with No or Minor Complications
217	Chronic Ulcer of Skin, Except Pressure
226	Hip Fractures and Pathological Vertebral or Humerus Fractures
227	Pathological Fractures, Except of Vertebrae, Hip, or Humerus
242	Extremely Immature Newborns, Birthweight < 500 Grams
243	Extremely Immature Newborns, Including Birthweight 500-749 Grams

244	Extremely Immature Newborns, Including Birthweight 750-999 Grams
245	Premature Newborns, Including Birthweight 1000-1499 Grams
246	Premature Newborns, Including Birthweight 1500-1999 Grams
247	Premature Newborns, Including Birthweight 2000-2499 Grams
248	Other Premature, Low Birthweight, Malnourished, or Multiple Birth Newborns
249	Term or Post-Term Singleton Newborn, Normal or High Birthweight
251	Stem Cell, Including Bone Marrow, Transplant Status/Complications
253	Artificial Openings for Feeding or Elimination
254	Amputation Status, Lower Limb/Amputation Complications

Table A6: MHSA Diagnosis Categories Used for Matching Algorithm

MHSA Code Range	MHSA Category
F01-F09	Mental disorders due to known physiological conditions
F10-F19	Mental and behavioral disorders due to psychoactive substance use
F20-F29	Schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders
F30-F39	Mood [affective] disorders
F40-F48	Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders
F50-F59	Behavioral syndromes associated with physiological disturbances and physical factors
F60-F69	Disorders of adult personality and behavior
F70-F79	Intellectual disabilities
F80-F89	Pervasive and specific developmental disorders
F90-F98	Behavioral and emotional disorders with onset usually occurring in childhood and adolescence
F99-F99	Unspecified mental disorder

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About Spring Health

At Spring Health, we are making mental health fundamental by eliminating every barrier to care. Our comprehensive digital platform provides employers and health plans with diverse, inclusive care for individuals and families. Using clinically-proven machine learning models, we accurately assess an individual's needs and then our experienced care navigators guide the individual to the right care, whether it's coaching, meditation, therapy, medication or more. Today, Spring Health serves over 800 companies, from startups to multinational Fortune 500 corporations, and is a preferred mental health provider to companies like General Mills, Bain, DocuSign, and Instacart. For more information, please visit www.springhealth.com

About SBA

Santa Barbara Actuaries is a healthcare consulting firm specializing in financial outcomes evaluations and predictive modeling. We combine data science with healthcare economics and actuarial mathematics to help our clients optimize healthcare interventions and quantify value creation. The mission of SBA is to help reduce the cost and complexity of healthcare, improve provider efficiency, and improve member choice by assisting our clients in the healthcare ecosystem better understand, quantify, monitor, and then optimize their risks. We can be found online at https://www.sbactuaries.com/