

# Third-Party Actuarial Certification of Program Results for 2020

**BridgeHealth**



November 24, 2020

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November 24, 2020

Mr. Jamie Hall  
President  
BridgeHealth  
4700 S. Syracuse Street, Suite 900  
Denver, CO 80237

Dear Mr. Hall:

MorningStar Actuarial Consulting, LLC was engaged by BridgeHealth to conduct an actuarial analysis of the effectiveness of its program in reducing costs to current and prospective customers. BridgeHealth connects people with a specialized network for surgical care with the goal to provide a better experience, better outcomes, and better value for the health plan sponsors and member patients. BridgeHealth's nationwide network of providers focuses on quality outcomes and provide pre-negotiated bundled case rates for a broad scope of surgical procedures, including musculoskeletal, neurological, general surgery, cardiac, bariatric, and women's health. BridgeHealth contracts with providers who rank in the top quartile for their clinical specialty, based on outcomes and other objective measures.

The primary source of data for this analysis was a detailed data summary from a previous Milliman analysis using a combination of the Milliman 2017 Consolidated Health Cost Guidelines™ Sources Database and the 2017 IBM Watson Health MarketScan Commercial Claims and Encounters Database®. Results from the Milliman analysis represent a traditional, commercial plan before the introduction of the BridgeHealth solution. Milliman developed benchmark data for BridgeHealth for a commercial market population (i.e. excluding Medicare and Medicaid experience) to best represent the medical plan experience for large health plan sponsors (employers, associations, trusts, etc.). Milliman did not participate in this current analysis and does not make endorsements.

In conducting this analysis, I relied on information supplied by BridgeHealth, as described herein. I have reviewed the data for reasonableness and accepted it without audit, relying upon the sources for the accuracy of the data. Assumptions used to reflect the effect of the BridgeHealth model on specified surgeries under a traditional commercial plan were reasonable for this analysis. The analysis was conducted using generally accepted actuarial principles and practices and reflect reasonable expectations.

The experience of a plan sponsor's actual results under the BridgeHealth solution and the aggregate results presented in the analysis may vary due to the differences in utilization and costs between the plan sponsor and the study data in addition to the random nature of healthcare events that occur from year to year. Additionally, the study assumes all eligible surgeries covered

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## I. Actuarial Certification

by a traditional health plan will be subject to the BridgeHealth protocols and setting. Results for health plans that implement the BridgeHealth model on a voluntary basis for participants may experience differences in results over and above the reduction in savings attributable to less than 100% participation in the BridgeHealth model. Past experience does not afford a guarantee of future performance and appropriate due diligence should be undertaken to ensure actual performance is within a reasonable range of expectations.

Finally, the analysis was conducted on data collected and summarized prior to the introduction of the Coronavirus and resulting disease (COVID-19) and pandemic in 2020 in the United States. The results presented in the actuarial analysis are, therefore, representative of what might be expected in a health care environment unaffected by the introduction of testing and treatment services for COVID-19 as well as changes in demand for services due to social distancing.

I am an Associate of the Society of Actuaries, a member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. I fully meet the qualification standards to issue an actuarial opinion.

I am available to respond to any question regarding this assignment, my analysis, or provide further explanations, as may be appropriate.

Sincerely,



Edward M. Pudlowski, ASA, MAAA, FCA

[Ed.Pudlowski@MorningStarActuarial.com](mailto:Ed.Pudlowski@MorningStarActuarial.com)

## II. Executive Summary

BridgeHealth provides value to health plan sponsors and their plan participants by avoiding unnecessary surgeries, driving needed surgeries to higher-quality providers in the most appropriate setting, reducing post-surgical complications, and reducing the cost of surgeries through risk-bearing, pre-negotiated bundled payments to a select network of providers. The solution offers a value-based approach to surgical care for plan sponsors and their members utilizing nationwide Centers of Excellence focused on quality outcomes and negotiated bundled case rates for a broad scope of surgical procedures, including musculoskeletal, neurological, general surgery, cardiac, bariatric, and women's health. BridgeHealth contracts with hospital providers who rank in the top quartile for their clinical specialty, based on outcomes and other objective measures, as well as top-rated ambulatory surgery centers.

Plan members gain access to some of the best providers in the country. They receive concierge-level service, with a personal care coordinator to assist them every step of the way. They also have access to unbiased decision support to help them with second opinions, alternative treatments, and provider selection.

Plan sponsors recognize significant cost savings, increased engagement, and increased productivity, along with recruitment and retention advantages, by offering a benefit that improves outcomes and reduces surgical costs. Plan participants experience reduced out-of-pocket costs for services as compared to their traditional health plan choice.

MorningStar Actuarial Consulting conducted an independent analysis utilizing data summaries developed previously by Milliman using BridgeHealth's bundling methodology. Milliman, an internationally recognized actuarial and consulting firm, used large national databases representing over 53 million lives and \$253 billion in paid medical claims (exclusive of pharmacy-based prescription drug claims) to analyze the claim experience under a traditional health plan setting. MorningStar compared the results from the Milliman analysis against the expected utilization and negotiated bundled case rates under the BridgeHealth solution.

Savings under the study were attributable from two primary sources:

1. Shift in the treatment facility (inpatient hospital, outpatient hospital, or ambulatory surgical center) to a higher quality, less costly setting, and;
2. Negotiated bundled payment rates set below traditional health plan provider contractual amounts.

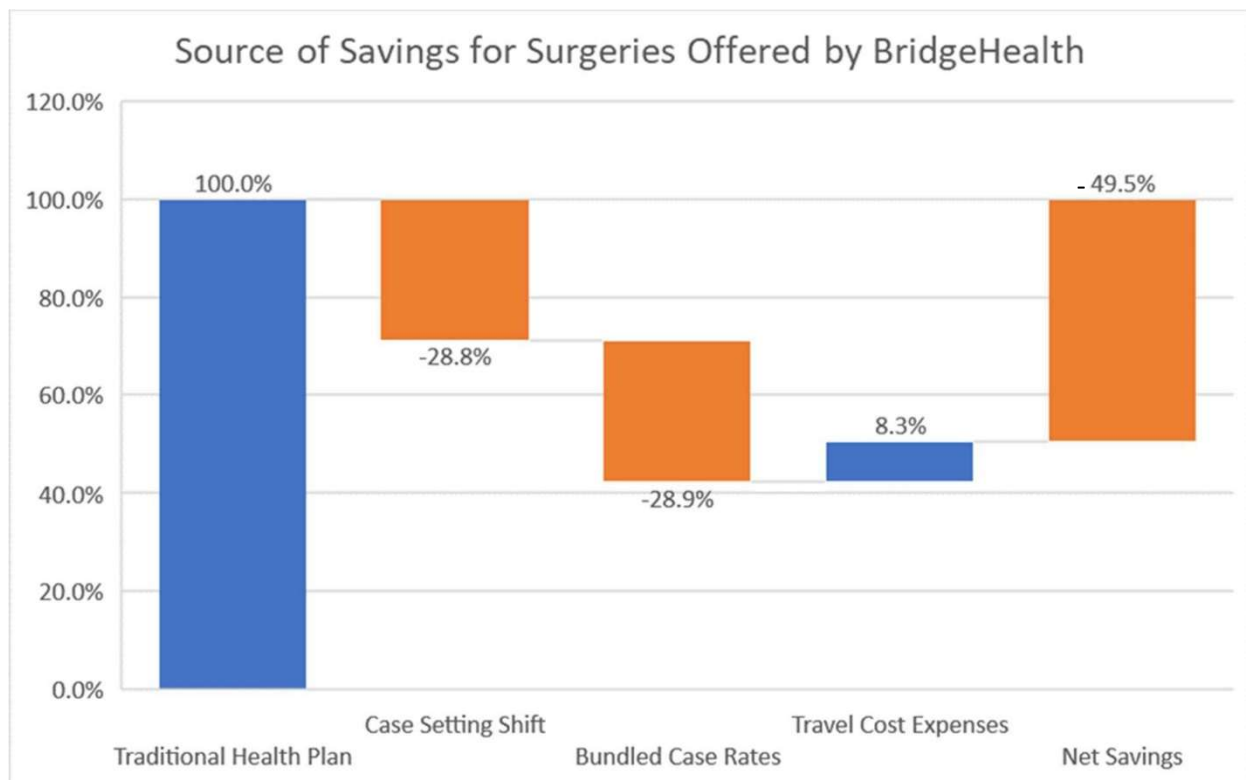
Savings resulting from a reduction in avoidable complications due to access to a higher-quality provider network are naturally reflected in the analysis through the bundled case rates, as BridgeHealth reimburses providers the same regardless of the surgical complication status. However, separately identifying the savings due to a reduction in complications is beyond the scope of this analysis.

## II. Executive Summary

Additional savings from the BridgeHealth model due to surgical avoidance, reduced re-admissions occurring more than seven days following the surgery, and more in-home care (less facility care) are possible but are also beyond the scope of this analysis.

Savings are offset by reimbursement for costs associated with travel for surgeries beyond a customer-specified radius of the patient's residence. Payments for air fare, hotel, and related miscellaneous expenses are a benefit of the BridgeHealth model.

The following graph shows the savings by source, as well as the expense reimbursement offset, as a percent of the medical claims for surgeries covered by BridgeHealth. The net result is a savings of 49.5%.



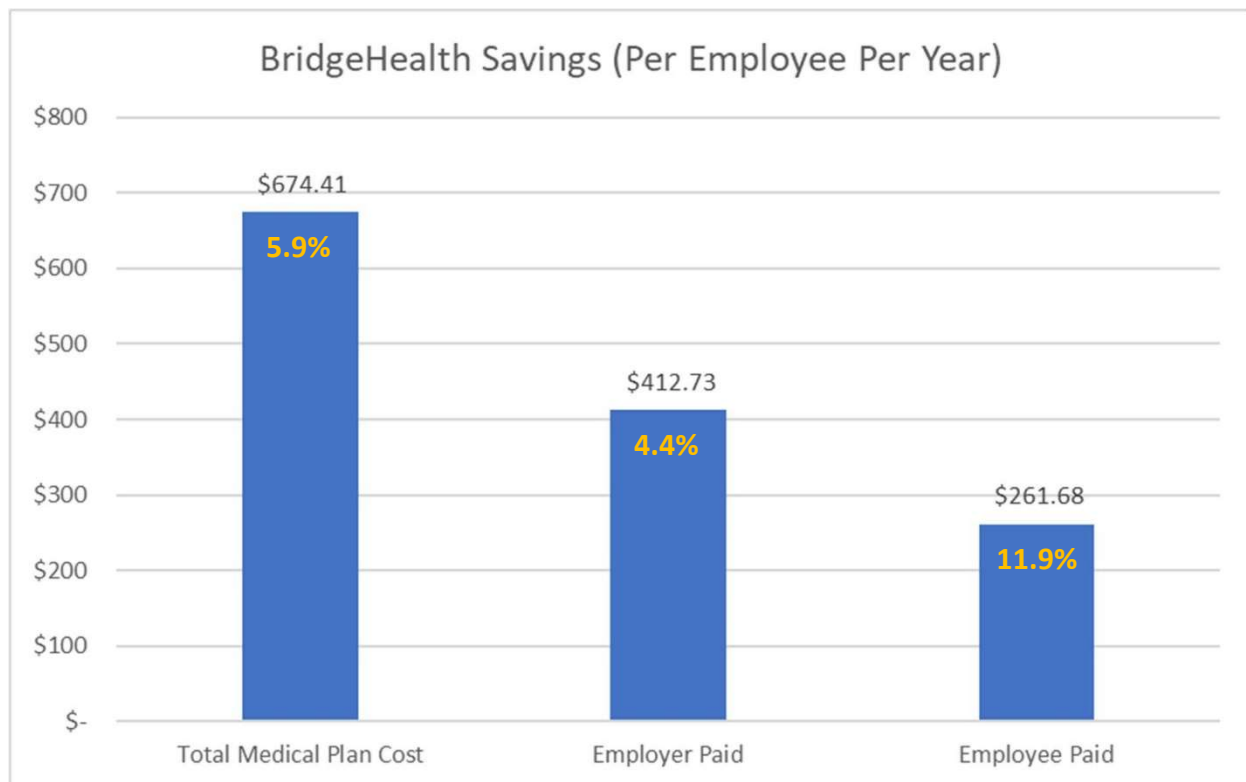
The study concludes that an average plan sponsor with 10,000 employees utilizing the BridgeHealth solution would save approximately \$4,127,000 in its annual health care spend in 2020 dollars assuming 100% (mandatory) participation from employees and dependents. This translates into estimated savings of \$412.73 per employee per year or \$202.24 per plan member. Additionally, employee and dependents would experience an estimated reduction in cost-sharing

## II. Executive Summary

features (deductibles, coinsurance, co-pays, etc.) of \$2,617,000 or \$261.68 per employee per year (\$128.22 per member).

The savings utilizing the BridgeHealth solution as a percent of total medical plan expenses (exclusive of pharmacy-based prescription drug claims) as compared to a traditional health plan approach for surgical care is estimated to be 5.9% of total allowed cost (employer and employee paid after any discounts), 4.4% of employer paid claim cost, and 11.9% of the cost typically paid by the employee and their dependents through the plan's cost sharing features (deductibles, coinsurance amounts, co-payments, etc.).

The following graph illustrates the estimated savings on a per employee per year basis in 2020 dollars and the applicable savings as a percent of the total medical plan claim cost (exclusive of pharmacy-based prescription drugs) under a traditional health plan by allowed charges (after applicable discounts), employer paid claims, and employee payments through cost sharing features (deductibles, coinsurance amounts, co-payments, etc.):



## II. Executive Summary

Actual customer results may differ from the results of this analysis due to factors including, but not limited to:

- Participation rates of less than 100% in the use of BridgeHealth surgeries;
- Actual claims cost for surgeries differing from the national averages for commercial plan projected in this study. Higher cost areas may exhibit greater savings and lower cost areas may exhibit less savings;
- The mix of surgeries versus the national averages;
- The mix of settings (inpatient, outpatient, ASC) versus the national averages and actual usage under BridgeHealth;
- Any changes in BridgeHealth's contractual bundled case rates versus those in place as of the date of this report;
- Utilization of travel and the associated expenses reimbursed for selected surgeries;
- Health plan design, and;
- Actual medical and general inflation rates.

The remainder of this report provides the purpose of the study, a discussion of the methodology used to conduct the analysis, and a more detailed description of data and assumptions used in the analysis.



### III. Purpose of the Study

Plan sponsors are concerned about their ability to provide plan members with a competitive package of health care benefits, offer a high-quality network of providers, and manage health care costs to the benefit of the sponsor and member participants. In conducting their due diligence with intervention programs and innovative health care solutions, plan sponsors benefit from independent analyses and actuarial verification from third-parties.

The purpose of this study was to examine the financial outcomes under the BridgeHealth model for certain surgical episodes managed under their network of providers against the outcomes in the absence of the BridgeHealth solution. Financial outcomes for both the plan sponsor (employer, association, trust, etc.) and the member were analyzed.

Value over and above the savings attributable to a shift to a more appropriate setting and negotiated bundled case rates below typical health plan reimbursement levels may also accrue to customers in a relationship with BridgeHealth. The additional value may include, but is not limited to:

- Decreased presenteeism;
- Lower absenteeism;
- Faster return to work;
- Better quality of life for the member and family;
- Greater member satisfaction with the health benefit offerings;
- Less time navigating the health care system;
- Lower administrative costs;
- Reduced stress, and;
- Greater employee retention.

However, these values were out-of-scope of the analysis and, therefore, not considered in the study for potential cost savings.

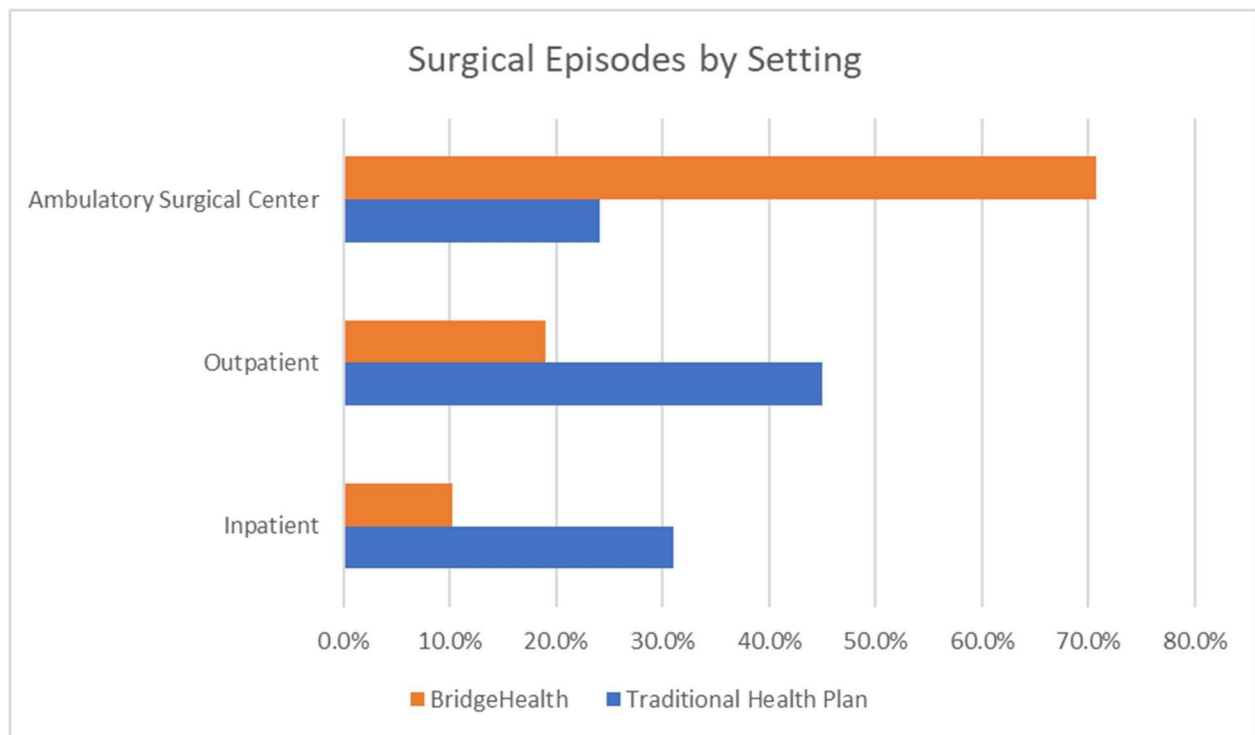
## IV. Methodology, Data, and Assumptions

### MorningStar Analysis

MorningStar Actuarial Consulting, LLC conducted this analysis using data provided by BridgeHealth, including the results of an analysis conducted by Milliman using a claim bundling algorithm developed by BridgeHealth. That analysis produced the cost and utilization by setting (inpatient, outpatient, and ambulatory surgical center or ASC) of each type of surgery episode representing a traditional commercial plan in the absence of the BridgeHealth model. The cost and utilization of specific surgeries for 2020 by setting were utilized in the MorningStar analysis to represent the estimated cost of the various surgeries offered by BridgeHealth and mix of utilization by setting experienced in a traditional commercial plan before the intervention of the BridgeHealth model. Detail on the data and prior analysis commissioned by BridgeHealth is provided later in this section. Milliman did not participate in this analysis and does not make endorsements.

For each surgery type, MorningStar adjusted the commercial data summary created by Milliman to reflect the pattern of utilization experienced under the BridgeHealth network resulting from the shift in surgeries to a more appropriate setting. Assumptions related to the shift in the setting of the service (inpatient hospital, outpatient hospital, ambulatory surgery center) from a commercial plan to that experienced under a BridgeHealth model were developed from a review of the actual mix of surgeries by setting under the BridgeHealth network experienced in the 2019 calendar year.

The graph below summarizes the shift in setting experienced under the BridgeHealth solution in 2019 as compared to traditional health plan experience as represented by the Milliman data:



## IV. Methodology, Data, and Assumptions

BridgeHealth experienced a greater portion of services in lower cost settings as compared to the experience from the national commercial datasets without impairing the quality of care. Assumptions related to the mix of surgeries by setting for each clinical category of surgery were developed from the 2019 data and used in comparison with the commercial health plan data to develop cost savings for the shift in setting under the BridgeHealth model for this analysis.

Reductions from commercial costs to bundled case rates were developed by BridgeHealth from contracted provider case rates and actual provider payment experience in effect as of September, 2020. BridgeHealth matched bundled cases by primary, secondary, tertiary, and subsequent CPT-4 codes against the Milliman data summary of typical surgery coverage to create the appropriate bundled case rate for comparative purposes. These were compared against the cost developed from the Milliman analysis of the national averages for the various surgeries and CPT-4 code strings. BridgeHealth then provided MorningStar Actuarial Consulting with the average discount by clinical surgery category for use in the analysis.

Reductions in the surgical complication rate under the BridgeHealth model due to contracting with higher-quality providers are captured naturally in the negotiated bundled case rates as payments are made without regard to the presence (or lack thereof) of avoidable complications, unlike the traditional commercial payment models.

Actual travel expense reimbursements for 2019 related to participants in the BridgeHealth programs were provided for every case. An average expense reimbursement amount per case, inclusive of cases requiring no reimbursement, was developed and trended to 2020 at 4% per annum. These amounts were incorporated into the analysis along with the bundled case rates to give a full picture of the cost under the BridgeHealth model.

Milliman's analysis of claims cost for surgeries was provided on an allowed cost basis (after discounts). Milliman also provided total gross allowed claims (after discount) for all medical plan services and gross paid amounts across all medical claims included in the databases used in their analysis. The ratio of paid to allowed claims calculated from this information was 80.8%. This assumption was used to derive the estimated cost savings on a paid basis from the allowed amounts, as well as the estimated savings that could be expected by plan participants in the form of a reduction in cost-sharing amounts (deductibles, coinsurance, co-pays, etc.).

### Milliman Study

In February, 2020 Milliman conducted a study for BridgeHealth to develop average reimbursements for BridgeHealth's contracted bundles by episode, including reimbursements at the 25th, 50th, and 75th percentiles, and frequencies of these cases relying upon BridgeHealth's definition of an episode of care.

## IV. Methodology, Data, and Assumptions

The underlying data used by Milliman to prepare the claim bundling analysis was based on data from health plan sponsors from two large national research databases:

- 2017 Milliman Consolidated Health Cost Guidelines™ Sources Database
- 2017 IBM Watson Health MarketScan Commercial Claims and Encounters Database®

Milliman has assembled the proprietary multi-year, multi-line-of-business, longitudinal claims and enrollment data structure for use in its product production, internal research and client engagements (Milliman Consolidated Health Cost Guidelines™ Sources Database or CHSD). Several national and regional health plans contribute annual enrollment and claims detail to the database. The number of unique annual commercially insured lives represented in calendar year 2017 is just over 30 million members.

The IBM Watson Health MarketScan research database reflects the healthcare experience of employees and dependents covered by the health benefit programs of large employers, health plans, and government organizations. These claims data are collected from approximately 350 payers. The MarketScan Commercial Claims and Encounters Database includes data from active employees, early retirees, COBRA participants, and dependents insured by employer-sponsored plans. The number of unique commercially insured lives represented in calendar year 2017 is nearly 23 million members. Milliman combined data from MarketScan with CHSD to ensure an appropriate level of diversity of data contributors.

Together, these databases represent 53 million commercial members and \$253 billion in paid claims.

Milliman used claim information from these combined databases to develop average costs per the surgery types covered under the BridgeHealth solution using Current Procedural Terminology 4<sup>th</sup> edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) codes. Milliman developed an average reimbursement for each combination of episode bundle and setting to create nationwide average reimbursements for each bundle. In order to better capture the true cost of a surgery and any associated pre-surgical care, follow-up care, or complications related to the surgery, Milliman captured related claim experience two days before the surgery and up to seven days afterward. Unique average reimbursements were developed for inpatient, outpatient, and ambulatory surgery center (ASC) settings. Reimbursements were trended forward for three years, from 2017 to 2020, at a rate of 5.0% per annum for inpatient settings and 6.0% per annum for outpatient and ASC settings. Annual trend values were based on secular trend guidelines from Milliman's Health Cost Guidelines™.

In developing the data summary, Milliman applied a claim bundling algorithm developed by BridgeHealth to the underlying data. Outliers and incomplete episodes were excluded from their results. Only commercial claim and enrollment information was utilized (i.e., Medicare and Medicaid data were excluded).

## IV. Methodology, Data, and Assumptions

The methods and assumptions used in the Milliman analysis and the creation of their data summary are described in detail in the report file titled *“Milliman - BridgeHealth Episode Reimbursements 2020-02-06.pdf”* provided to BridgeHealth. This report can be made available upon request.

Conducting the analysis in this manner captured many elements of the cost of surgeries not typically identified in the surgery service cost category listed on reports provided to health plan sponsors by data analytical systems or the health plan carrier. Missing from these standard reports, but captured to some degree for Milliman’s analysis, are costs associated with diagnostic testing, radiology, and related post-surgical care management. Additionally, readmissions for surgeries are often identified as a separate admission not associated with the original procedure as was the case in the Milliman analysis. Conducting the analysis by combining related CPT codes into episodes of care better enable the capture the true cost of the surgical procedure.

It is worth noting that the bundling algorithm used in the Milliman analysis will not capture the full cost associated with surgeries under a traditional health plan. The cost of health care events related to the surgeries that take place more than two days before or seven days after the surgery, outliers excluded from the Milliman results, claims with modifiers related to the surgery, and any required physical or prescription drug therapies to recover from a surgery not captured in these analyses would create a greater savings opportunity than measured here. Additionally, the avoidance of any unnecessary surgeries under the BridgeHealth model as compared to a traditional health plan would generate savings. Analyses of these elements are considered outside the scope of the MorningStar study.

The summary data file and results from that analysis were made available to MorningStar Actuarial Consulting for use in the current analysis. The claim data summary included utilization and cost experience for the same set of surgeries offered in the BridgeHealth program. For each type of surgery offered by BridgeHealth (bariatric, cardiac, coronary bypass, general surgeries including vascular surgeries, neurological, orthopedic including joint replacement surgeries, spinal, and women’s health), summary data was collected on the number of episodes and the allowed cost (after negotiated provider discounts).

## V. About the Author



**Edward M. Pudlowski, ASA, FCA, MAAA**  
**President, MorningStar Actuarial Consulting, LLC**

**Associate of the Society of Actuaries (ASA)**  
**Fellow of the Conference of Consulting Actuaries (FCA)**  
**Member of the American Academy of Actuaries (MAAA)**

**2019 President of the Conference of Consulting Actuaries (CCA)**  
**Chair of the CCA's Healthcare Community**  
**CCA Delegate to the International Actuarial Association (IAA)**  
**Member of the Strategic Planning Committee of the IAA**  
**Board member of the Health Section of the IAA**

Ed has more than 35 years of experience developing human resource philosophies and supporting strategies to improve employer's return on their investment in human capital. Ed has developed unique solutions for employee and retiree benefits plans, including issues resulting from COVID-19, health care reform, and other significant events. He also specializes in developing value proposition models for innovative healthcare solutions.

Prior to founding MorningStar Actuarial Consulting, Ed was Chief Operating Officer and Chief Consulting Officer with American Fidelity Administrative Services, LLC where he drove employee benefit compliance and consulting solutions for public entities and school districts across the country. He was also a Partner with Ernst & Young where he led the Human Resource Cost Management initiative, the Employer Strategy Task Force on Health Care Reform, and consulted with Fortune 500 clients on their employee benefit plans. Ed also worked for two large employee benefit consulting firms (Mercer and Buck Consulting) where he drove employee benefit solutions for large employers (including Fortune 500 employers), unions, and large public entities. Ed started his career as the Assistant Actuary for a large health insurance company.

Ed is a frequent speaker on health care and other health and welfare plan issues and has published several articles in national business magazines covering the evaluation of health care innovative solutions, health care reform, financial risk in human resources, and quality in health care. Ed holds a BS in Applied Mathematics from Indiana University of Pennsylvania and a minor in Computer Science. He is an Associate of the Society of Actuaries, a member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries (CCA). Ed was the 2019 President of the CCA and chairs its Healthcare Community. He also serves on the Strategic Planning Committee of the International Actuarial Association (IAA), is the CCA's delegate to the IAA, and is as a board member of the Health Section of the IAA.