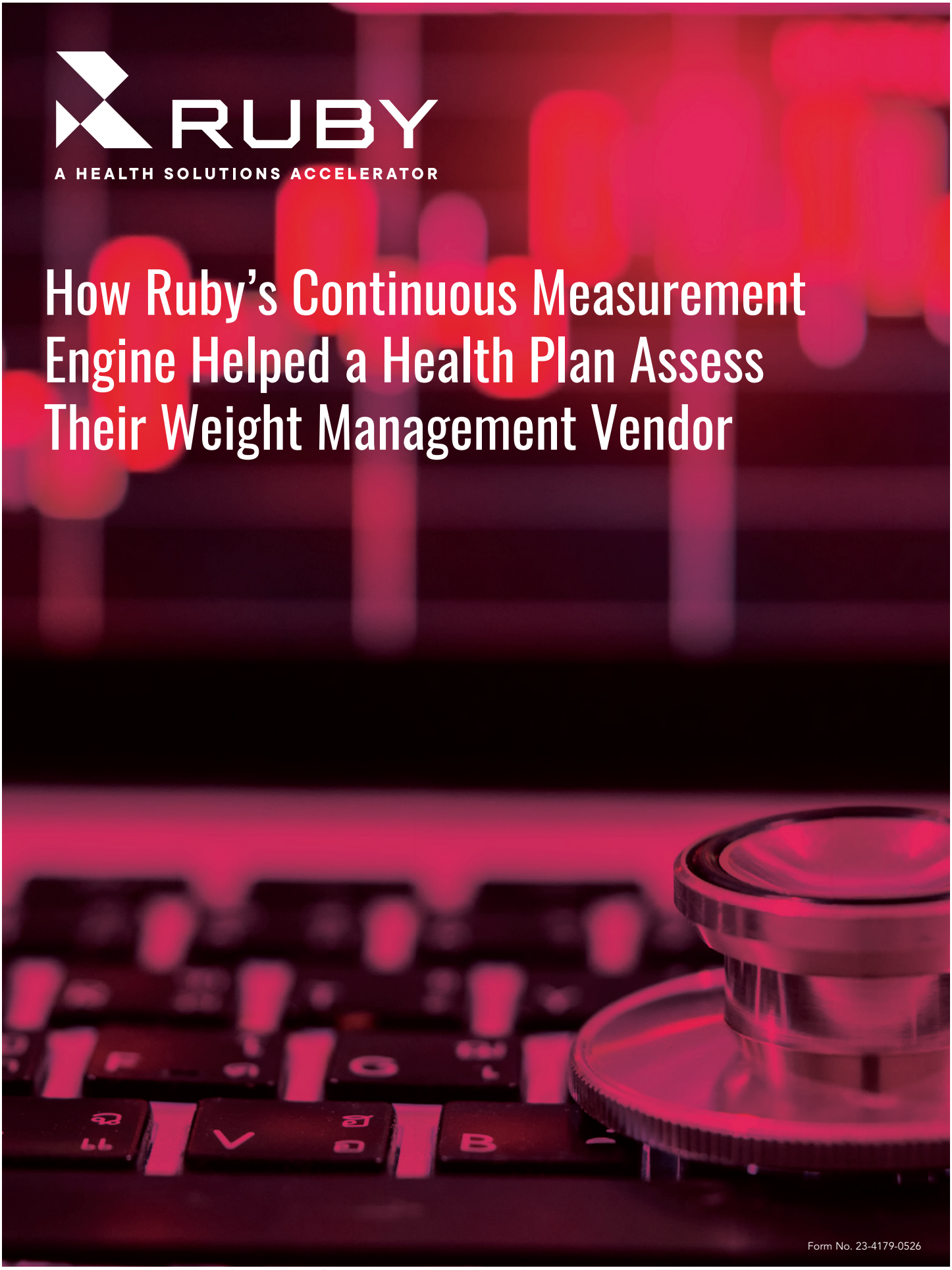
RUBY

A HEALTH SOLUTIONS ACCELERATOR

How Ruby's Continuous Measurement Engine Helped a Health Plan Assess Their Weight Management Vendor



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What is Ruby?

Ruby Analytics is an analytics platform designed to transform how organizations measure performance, uncover insights, and drive better outcomes. Originally developed within Blue Cross of Idaho, Ruby was built to address a core industry challenge: static, retrospective reporting that limits an organization's ability to continuously track and improve performance. Ruby replaces this with continuous measurement, key insights and benchmarking, and predictive analytics – enabling health plans and partners to monitor affordability and manage their portfolio of programs in near real time, identify cost drivers, and make data-informed decisions that improve performance and reduce total cost of care.

Ruby's product suite centers on a differentiated set of scalable, patent pending, market-facing analytics solutions. Its core offerings include Continuous Measurement (automated, ongoing evaluation of program performance and ROI), Predictive Analytics (forecasting future cost and utilization outcomes to enable proactive interventions), Key Insights and Benchmarking (standardized metrics, scorecards and comparative performance analysis), and Analytic Consulting (deep-dive analyses to identify root causes and develop actionable recommendations). Together, these products create a comprehensive analytics ecosystem that moves beyond reporting to actively optimize programs, support strategic decision-making and continuously improve healthcare affordability and outcomes.

Weight Management program background

A western health plan partnered with a third-party vendor to offer a weight management solution to self-funded clients and other market segments as a buy-up product. Members who engage in the program participate in a series of educational sessions and receive wearable devices to help them on their weight loss journey.

The opportunity

During the procurement process, the weight management vendor assured the plan that the solution would not only help members lose weight but also reduce their total cost of care. Ruby's analytics were used to determine the validity of the statement.

The Ruby solution

Ruby measured the program using the **Cohort Study Methodology**, where we compare disease-specific total-allowed spend between two groups:

1. Members participating in the weight management program *(treatment group)*
2. Members not participating in the weight management program *(control group)*

This approach:

- Simulates a randomized control trial experiment in a near real-team environment
- Calculates the savings difference between both groups over time
- Uses zero-time based reporting to allow aggregation and comparison between different time-based cohorts

Phase 1: Data Integration

Data from various sources is compiled into Ruby's analytics platform.

- Claims data, enrollment data, risk scores and other attributes are aggregated to calculate attributes at the member level over time.
- Program-specific data was pulled from vendor data feeds and from the Sales team to identify which groups offered the program, which members participated, and how far each member progressed.

Phase 2: Continuous Measurement Engine

With the data foundation layer established, the team created a study design and selected the target variable to be measured, and the criteria for which members would be included in the treatment and control groups. In this instance, the control group was limited to members with a diagnosis of obesity in a group that had not purchased the program, among other considerations.

When a new study is set up, the Continuous Measurement Engine:

- Identifies all eligible members of the treatment group
- Uses machine learning to identify the most important predictors of the target outcome
- Leverages proprietary, best-in-class statistical matching methods to identify a set of similar control members matched on those key predictors *(like creating a doppelganger, or twin, of the control group)*
- Estimates the initial similarity score and savings value between treatment and control groups

Each following month, the Continuous Measurement Engine:

- Identifies which members remain in the treatment group and control group
- Calculates the similarity score and savings value between treatment and control groups

Studies continue as long as the treatment group and control group are sufficiently similar. Studies end when there are not enough treatment or control members, or the similarity score between treatment and control is no longer within its tolerance limit.

This monthly continuous measurement cycle allows clients to observe trends over time and how the program matures. The monthly cadence also allows the client to see program changes in near real-time and its impact on trends.

Phase 3: Operationalization

Each month's results are stored at the member level and then aggregated to provide different views, depending on the audience *(market segment level, self-funded client level, etc.)*.

Ruby shares these results into a dashboard where business-area stakeholders can see how their portfolio of programs was performing.

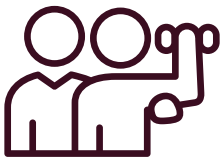
The Ruby solution updates stakeholders when program savings shift from a positive gross savings value to a negative gross savings value and vice versa. Additional consultation with Ruby analysts and business areas allowed for more in-depth discussions on details.

Core findings

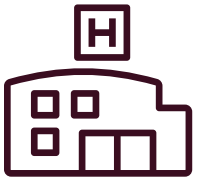
Weight Management is a unique program in that the vendor bills by claims. A claims-cost analysis using Ruby naturally creates a net savings perspective over a gross savings perspective.

The overall recurring program costs are large enough that they ultimately don't outweigh the savings benefit. The program cost for treatment group members had an expected increase of $20.62 PMPM in total allowed savings for preventative/administrative health encounters.

Treatment group members also saw additional increases in total allowed spend compared to their control member counterparts in:



Physical therapy average cost and utilization **($3.24 PMPM)**



MSK outpatient surgeries average cost and utilization **($4.15 PMPM)**

Treatment group members had very small decreases *(savings)* in total allowed costs compared to their control member counterparts. Most notably, **spinal fusion procedures utilization savings resulted in $5.44 PMPM.**

Actionable outcomes

Ruby's results contradicted the vendor's statements that their solution would reduce the total cost of care. This changed how the solution was marketed to clients, characterizing it instead as a member experience program that had some claims impact rather than an affordability solution.

Additionally, business leaders used Ruby's results to help support vendor contracting decisions. They ultimately decided to shift away to a new vendor partner to create a more impactful program.