How to tell if your vendor's claims are valid: Part Three

Inaccurate marketing claims and outcomes reports are proliferating. The Validation Institute has staked out a position as the leader in assisting/promoting vendors and consultants in the "Integrity Segment" of the healthcare services market.

How can you tell if your adviser is in the Integrity Segment? The easiest way: did they send you to this series or did you have to find it on your own?

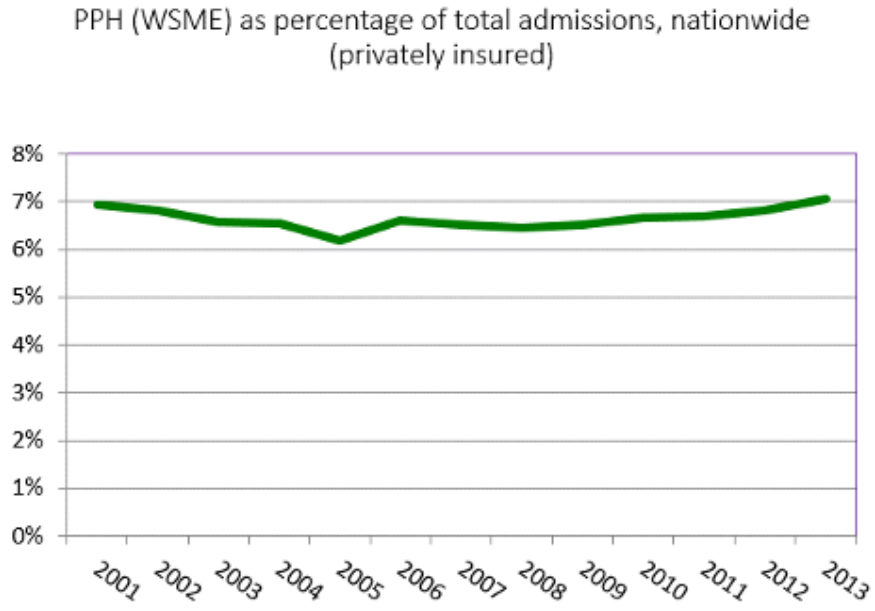
Part One showed that regression to the mean was responsible for a large chunk of claimed savings, and one vendor even admitted it publicly. Part Two showed that separating a population into active, willing participants and comparing their performance to non-participants demonstrates exactly why the FDA nixed that study design in 1962.

Part Three will now explore the role of "trend inflation" in generating savings...and how to spot it as a fallacy. As with the other two, vendors have been known to accidentally admit that inflating a trendline is an easy way to show savings. Seth Serxner, of Optum, said it best (behind paywall):

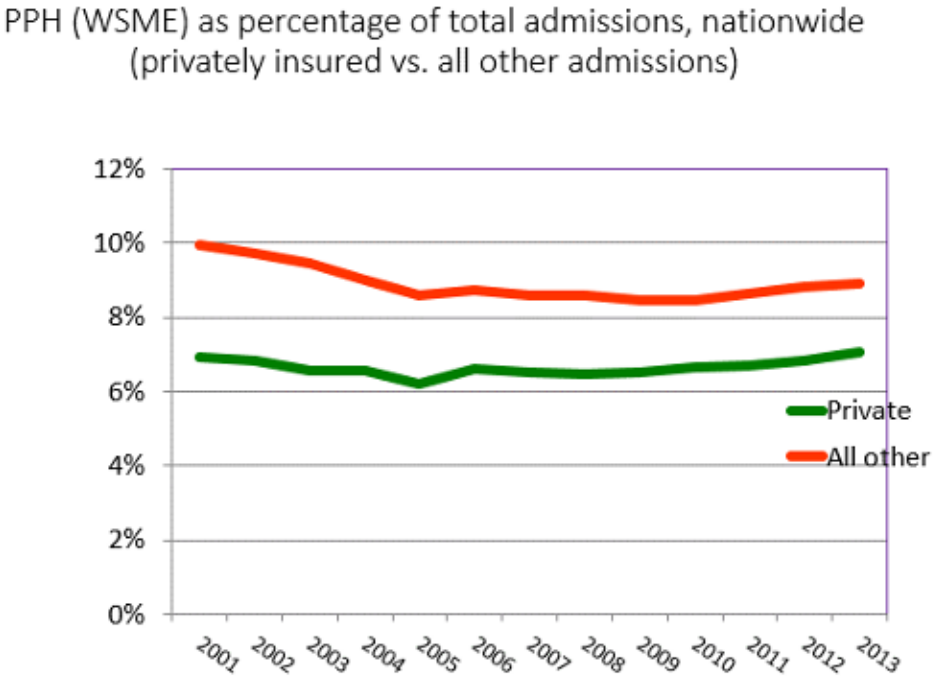
> *"We can conclude that choice of trend has a large impact on estimates of financial savings."*

Of course it does. Vendors retain actuarial firms or consulting firms – preferably those that also consult to their customers -- to show savings, not to determine whether there are savings in reality.And one of the easiest ways to show savings is to concoct a straw-man trend inflating fast enough that you can, in Mr. Serxner's words, "estimate financial savings" quite optimistically via a simple comparison to that trend.

Mr. Serxner returned to that theme during a taped debate. It was pointed out that despite the massive investment that employers had made implementing increasingly comprehensive and punitive wellness programs, the rate of wellness-sensitive medical events (WSME) in the employer-insured population had remained virtually unchanged, according to the Agency for Healthcare Research and Quality (AHRQ).



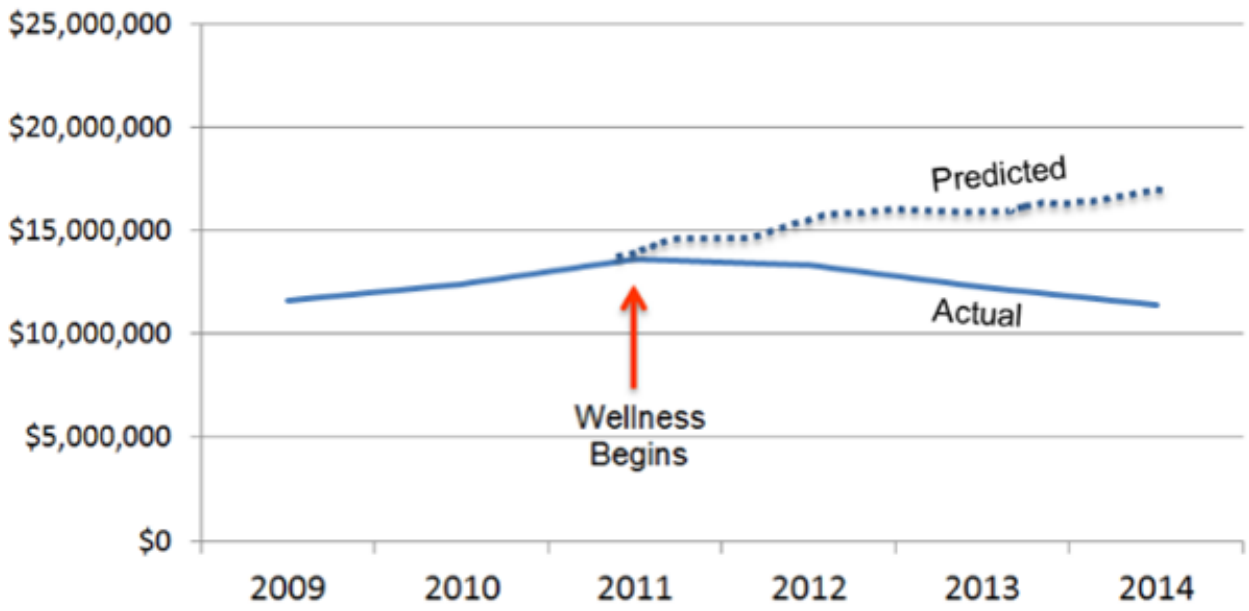
He suggested [2] that the rate would have increased dramatically otherwise, so that the WSME rate would have been much higher absent wellness programs. Unfortunately for him, the AHRQ also collects data on non-employer-insured patients, who by definition would not have access to employee wellness programs. It turns out that people without access to wellness programs trended slightly better than people with access. (That red line is higher in general because Medicaid, Medicare and uninsured populations have worse health than commercially insured people.)



[2] https://www.temi.com/editor/t/mcFSfV6o4uV7prz7HGQdwW-x-t_X-r5D-pKpfpTjPpDR3yTiF9WJZFvuPxkVLAGxETxhMT_PELRUGPxjhuj9-99MZOg?loadFrom=PastedDeeplink&ts=508.07 Minute 1:04

Another example of trend inflation would be our friends from Part One: Wellsteps. Their wellness program – the subject of a detailed exposé in STATNews and The Boston Globe, claimed massive savings simply by drawing a trendline and crediting themselves for the difference between the "predicted" 15% cumulative increase and the allegedly "actual" 15% decrease.

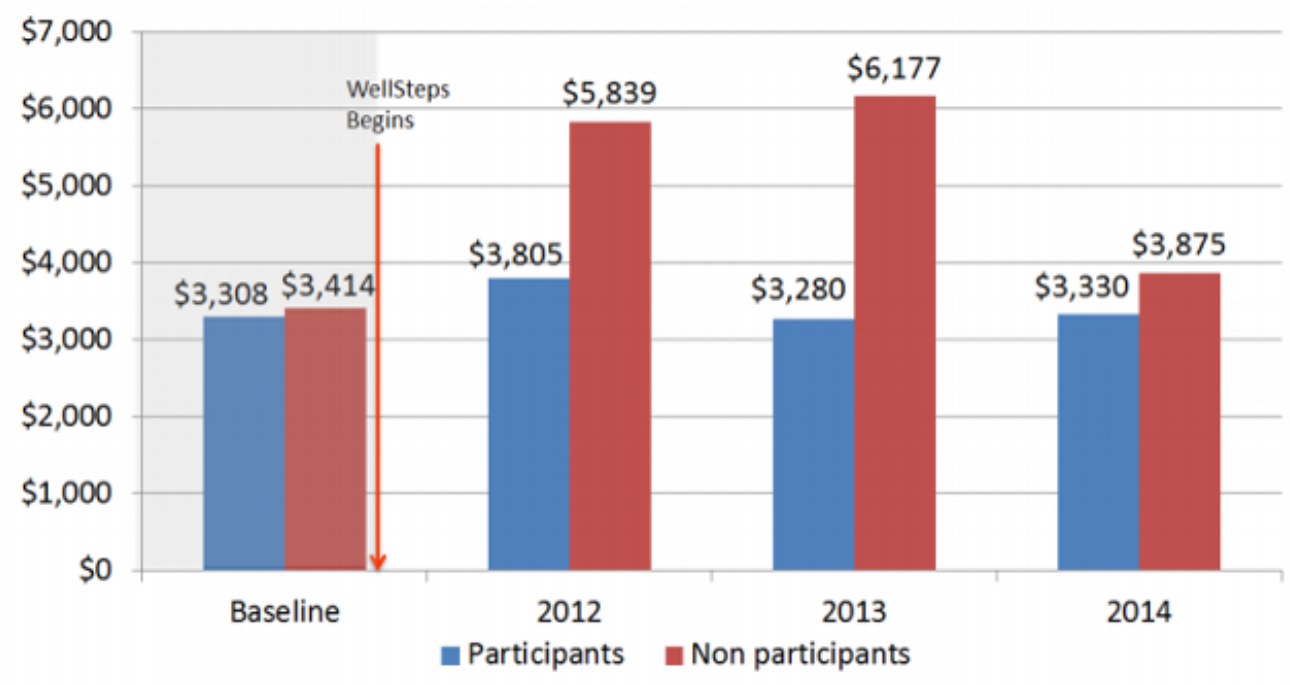
Figure 1. Predicted versus Actual Medical Costs for the District



There is a saying that "in wellness, you don't have the challenge the data to invalidate it. You merely have to read the data. It will invalidate itself." Wellsteps was the poster child for this observation in Part One on regression to the mean, as they admitted their fabrication.

This time they didn't actually admit their fabrication. Their own data did. They published a chart, subsequently deleted, showing that costs per person increased over that period, from $3308 to $3330 for participants and slightly more for non-participants.

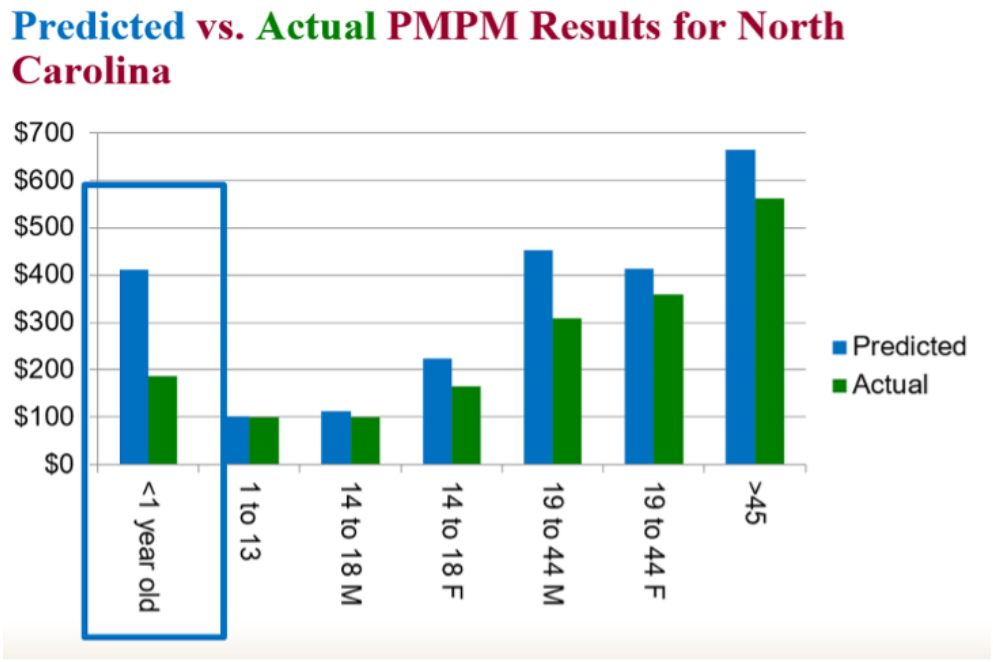
Figure 3. Medical Costs for Wellness Participants and Nonparticipants



How can costs go up on for individuals and down for the population at the same time? The reconciliation was quite simple, albeit unstated: the covered population declined over time.

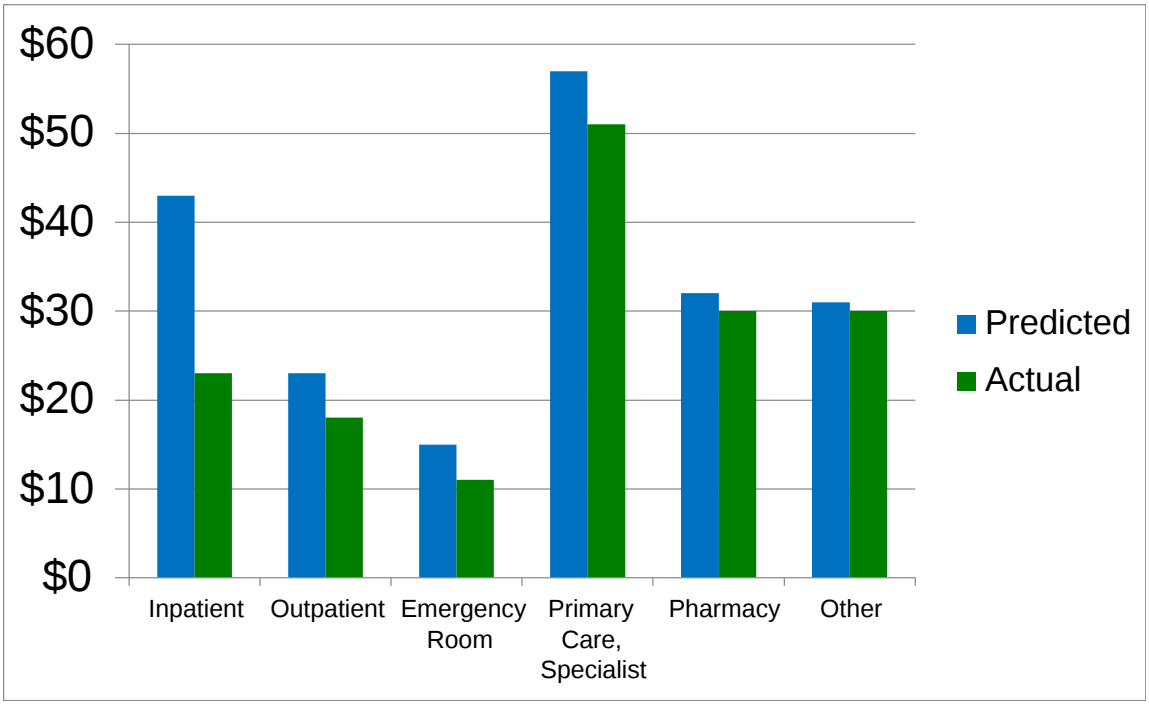
How to spot this fallacy

Look for reports where everything declines vs. "predicted." For example, consider North Carolina Medicaid. North Carolina Medicaid had instituted a patient-centered medical home model through a vendor, Community Care of North Carolina (CCNC). CCNC paid several teams of actuaries, starting with Mercer, to show savings. The (subsequently deleted) Mercer report "showed" that per-member-per-month savings had been realized in every age group, with savings exceeding 50% per baby per month.



The way to know that each of these figures is fictitious is that while by far the largest savings was realized in babies, babies were not even eligible for the program, which was for adults only. (Neonatal days, by far the largest avoidable expense, also rose slightly. Those would have needed to dramatically decline for this result to be valid -- assuming babies were included in the measurement, which they weren't.)

Mercer also broke out the comparison by category of spending.

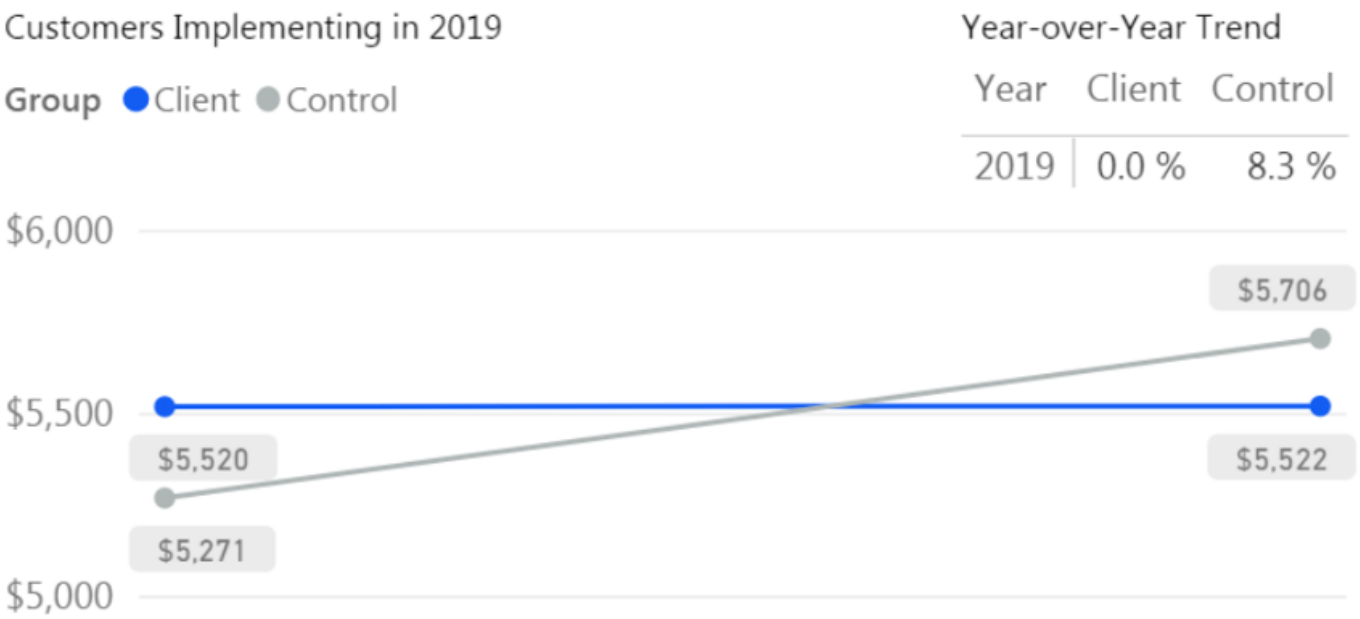


This is where your fraud-o-meter should be flashing red. Every category of spending can't decline. If you insulate your house, you'll save money...but not on insulation. Looking at this slide, ask yourself: "Where is the insulation expense?" Normally one attempts to reduce inpatient expense by shifting to outpatient, getting more office-based care, or increasing use of meds. In this case, everything declined.

Eventually the state of North Carolina was shown that none of these figures were accurate, and subsequently terminated the program.

Did Accolade just do exactly the same thing?

Now that you've seen how trend inflation has worked in the past, try applying that same paradigm to Accolade's recent report. By way of background, Accolade paid Aon to show savings, and Aon delivered. Aon drew a trendline and "found" that Accolade reduced utilization by 8.3% after only one year. They saved money across all conditions -- including anxiety, mental mood, neurological disorders and hypothyroidism, four categories in which no other vendor has ever claimed savings.



They somehow also achieved large reductions in asthma, which no other vendor has ever achieved because the number of asthmatics you need to medicate in order to avoid an ER visit is much higher than the value of the ER visit theoretically avoided. Cancer cost was reduced 18% in the first year alone, and 26% after 2 years. Even cancer vendors don't allege that.

	2018 - Year 0 (Before Accolade)				2019 - Year 1 (Accolade)				
Conditions	Client Mbrs	Client PMPY	Control PMPY	Cost Ratio	Client Mbrs	Client PMPY	Control PMPY	Cost Ratio	Cost Ratio vs Yr0
Mental Anxiety	9,653	$9,619	$9,471	1.02	11,077	$9,399	$10,019	0.94	-0.08
Disc Disorders	8,204	$12,484	$12,030	1.04	8,768	$11,848	$12,960	0.91	-0.12
Hypertension/Cardiovascular	7,888	$16,988	$16,052	1.06	8,480	$16,154	$17,005	0.95	-0.11
Neurological Disorders*	4,005	$23,779	$22,027	1.08	4,767	$23,732	$23,444	1.01	-0.07
Mental Mood*	3,946	$13,018	$12,819	1.02	4,469	$13,138	$13,737	0.96	-0.06
Metabolic Disorders	3,518	$14,086	$13,764	1.02	4,181	$12,840	$14,518	0.88	-0.14
Asthma*	3,412	$10,632	$9,384	1.13	3,744	$10,057	$10,160	0.99	-0.14
Migraine/Headache*	3,135	$11,948	$11,455	1.04	3,409	$11,446	$11,964	0.96	-0.09
Diabetes*	2,756	$15,115	$14,687	1.03	2,882	$14,917	$15,856	0.94	-0.09
Pregnancy Related	2,735	$18,939	$19,201	0.99	2,764	$19,096	$19,925	0.96	-0.03
Hypothyroid	2,473	$12,833	$11,815	1.09	2,633	$12,038	$13,267	0.91	-0.18
Lipid Disorders*	2,414	$9,910	$10,047	0.99	2,725	$9,665	$10,501	0.92	-0.07
Upper GI/Esophageal*	1,904	$15,318	$14,919	1.03	2,275	$14,489	$15,100	0.96	-0.07
Osteoarthritis*	1,446	$19,538	$19,412	1.01	1,591	$18,381	$19,602	0.94	-0.07
Cancer*	1,286	$42,344	$36,329	1.17	1,417	$35,814	$36,440	0.98	-0.18

*Differences in PMPY between control and Accolade customers in Year 1 not statistically significant

Since vendors in this space don't negotiate contracted prices, Accolade must have achieved these reductions by utilization reduction, shifting many people out of high-cost inpatient settings into lower-cost outpatient and physician office settings. Let's see if the data supports this hypothesis. In the first year, they did get an 11% decline in inpatient…but where did the patients go instead? Outpatient utilization fell by 13%. It's not like they were getting treated in the doctor's office. Utilization fell 5% there.

Service Category	2018 - Year 0 (Before Accolade)				2019 - Year 1 (Accolade)				
	Client PMPY	Control PMPY	Client - Control	Cost Ratio	Client PMPY	Control PMPY	Client - Control	Cost Ratio	Cost Ratio vs Yr0
Physician	$2,101	$2,068	$33	1.02	$2,150	$2,208	($58)	0.97	-0.05
Outpatient	$1,499	$1,312	$187	1.14	$1,443	$1,432	$11	1.01	-0.13
Inpatient	$852	$814	$38	1.05	$860	$911	($51)	0.94	-0.11
Specialty Rx	$609	$587	$23	1.04	$616	$626	($10)	0.98	-0.06
Brand Rx	$299	$318	($19)	0.94	$267	$343	($76)	0.78	-0.16
Generic Rx	$159	$172	($13)	0.93	$186	$186	$0	1.00	0.07
Total	**$5,520**	**$5,271**	**$249**	**1.05**	**$5,522**	**$5,706**	**($184)**	**0.97**	**-0.08**

They also achieved reductions in almost every group of people with comorbidities, including by far the largest cohort—the 18,062 people who didn't have anything wrong with them to begin with. The report was silent on how costs could decline (vs. trend, of course) 8% in a cohort that was healthy to begin with.

Comor-bidity Grp	2017 - Year 0 (Before Accolade)				2018 - Year 1 (Accolade)					2019 - Year 2 (Accolade)				
	Client Mbrs	Client PMPY	Control PMPY	Cost Ratio	Client Mbrs	Client PMPY	Control PMPY	Cost Ratio	Cost Ratio vs Yr0	Client Mbrs	Client PMPY	Control PMPY	Cost Ratio	Cost Ratio vs Yr0
0	18,062	$1,466	$1,557	0.94	17,780	$1,444	$1,581	0.91	-0.03	19,243	$1,452	$1,680	0.86	-0.08
1	6,787	$6,497	$6,247	1.04	7,034	$6,502	$6,331	1.03	-0.01	7,493	$6,233	$6,545	0.95	-0.09
2	2,502	$14,465	$12,706	1.14	2,713	$13,316	$12,854	1.04	-0.10	3,051	$14,141	$13,681	1.03	-0.11
3	904	$23,998	$22,894	1.05	980	$23,736	$22,540	1.05	0.00	1,196	$24,105	$22,781	1.06	0.01
4+	425	$40,650	$37,157	1.09	464	$35,188	$37,771	0.93	-0.16	571	$35,861	$37,855	0.95	-0.14
Total	**28,680**	**$5,099**	**$4,858**	**1.05**	**28,971**	**$5,095**	**$5,095**	**1.00**	**-0.05**	**31,554**	**$5,309**	**$5,471**	**0.97**	**-0.08**

Quantum vs. Accolade

We'll leave it to the reader to decide whether Aon's analysis is valid, or whether it exemplifies Seth Serxner's admission that "the choice of trend" determines your claimed savings.

Quantum and Accolade are direct competitors. The difference is that Quantum is validated by the Validation Institute. We have reviewed their data carefully…and stand behind our findings with our $25,000 Credibility Guarantee payable to Quantum clients

who feel misled by our validation. To our knowledge, no consultants or actuaries stand behind their reports in this manner. Nor has any consultant or actuary ever failed to "find savings" when paid to do so, which is one reason none offers a credibility guarantee.

COMING NEXT

The next installment will highlight Quantum, among others, as an example of how the Validation Institute uses "plausibility indicators" to determine whether a vendor or actuary analysis is fabricated or legitimate.