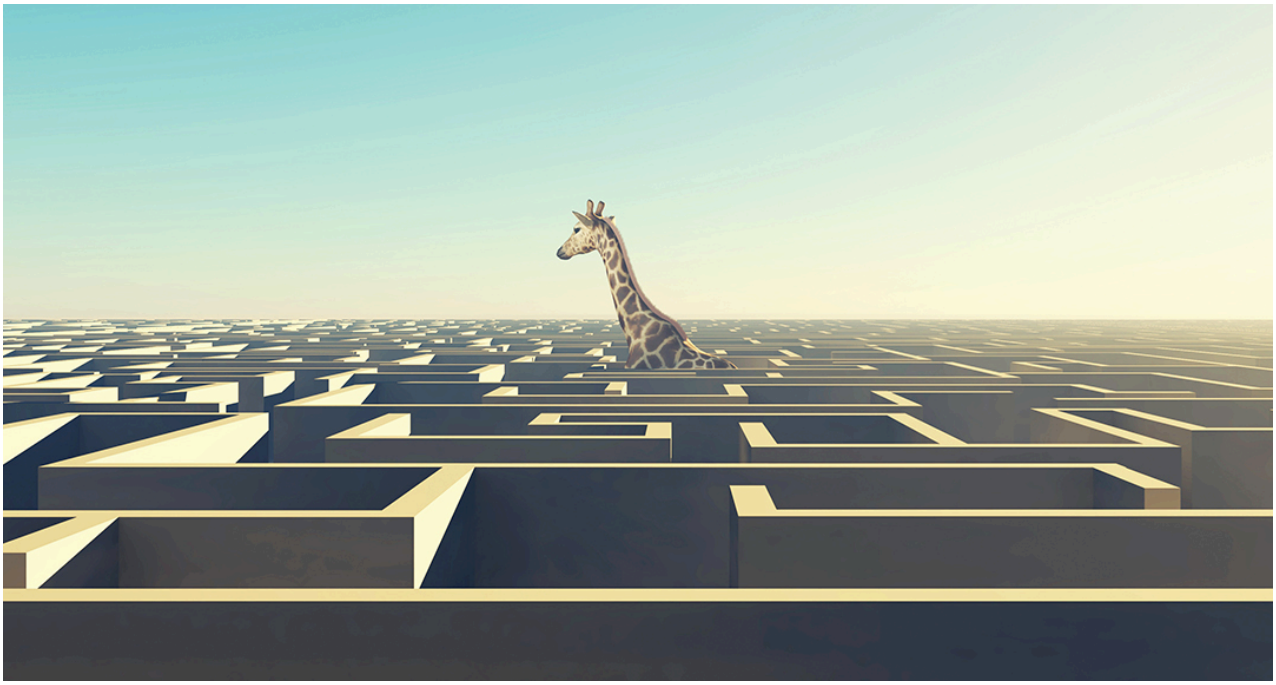

ACTUARIAL SPECIALTIES | HEALTH

Member Advocacy as a Health Care Innovation

How improved transparency and guidance within a complex system can improve consumer health literacy

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The concept of waste in the U.S. health care system is not a novel concept. On the contrary, it has become a well-known phenomenon that is uniquely ubiquitous to the industry. Efforts have been made to categorize, quantify and analyze this waste, and most estimates suggest it comprises 30 percent of the dollars flowing through the system.[1] This article does not attempt to recreate such analyses or to examine the accuracy of those that exist. Rather, it discusses an underlying issue as it relates to *why* so much potential waste exists. Not surprisingly, much of the waste boils down to the fact that the system is so complex.

SIMPLIFYING THE COMPLEX

Walking through the gates of a delivery and financing system, one quickly realizes that they have entered a maze fraught with dead-ends and stairways to nowhere. Even for those of us who live and breathe the jargon of health insurance, it can be intimidating and stressful—and we're usually only privy to or have expertise in a few areas. Consumers rarely ever *want* to enter this realm—it's not like a strip mall where they window-shop for the latest cancer technology, see what the shiny new titanium hip looks like or stock up on their favorite set of crutches. Even if consumers wanted to shop for those things, as they do online or in a normal marketplace for other goods and services, today's "normal" market forces are nowhere to be found.

Consumer: "How much will this lab test cost me?"

Doctor: "We don't deal with that; you'll have to talk to billing. I'll order it and send the script over."

Billing: "We don't have the codes yet, and we're not sure what your insurance will cover. You should talk to them."

Insurance: “Well, if they bill CPT 12345 with diagnosis code ABC.0001, then it should be covered. Your deductible is $1,500, and you’ve satisfied $250 of it so far, but we can’t say exactly how much this will end up costing you because we don’t know where they’re sending it or what else they might be testing. If it’s out of network, it won’t be covered at all, and they will bill you the full amount—there won’t be a discount to our contractual allowance because they’re not in your network.”

Consumer: *Face palm*

This is just one example of the lack of transparency as it relates to cost of health care, assuming the consumer even attempts to ask the question or research the answers. The same opacity exists when considering things like where the best place to go for a specific issue is, quality of care one can expect to receive, a potential second opinion, follow-up care, drug therapies and interactions, and the list goes on and on.

Health care consumers view the “product” being purchased as their continued health and livelihood, so they will pay almost any price in the face of the uncertain alternatives of disability, disease and death.
With confusion at nearly every turn, consumers become some combination of scared, confused, angry and frustrated. Traditional market dynamics usually assume some semblance of a rational consumer market base, but in this world of uncertainty, it would be a stretch to assume health care consumers are rational. Layering all of this on top of the fact that health care consumers often view the “product” being purchased as their continued health, livelihood or eventual decision of life vs. death, consumers would (and do) pay almost any price in the face of the uncertain alternatives of disability, disease and death. As altruistic as the players within the front lines of this industry may be, this perfect storm creates a breeding ground of profit-seekers who are all looking to get their slice of the pie. Point solutions abound to help both consumers and businesses navigate a particular money-draining silo—but not without their own costs.

While the scope of the complexity described is well beyond what can be discussed in this article, we will focus our attention on the concept of consumer health literacy. The Centers for Disease Control and Prevention (CDC) defines this term as “the degree to which an individual has the capacity to obtain, communicate, process and understand basic health information and services to make appropriate health decisions.”[2] Many companies’ primary proposition to clients is health benefit aggregation, simplification and navigation. They all tout how their coordination and advocacy programs result in happier and healthier employees, which has a direct impact on an employer’s bottom-line health expenses. This article will review a case study quantifying one company’s endeavor to reduce costs in the system by eliminating some of the complexity for consumers through early and personalized engagement, clinical support during health care journeys, and improved patient and provider decision-making.

ACCOLADE CASE STUDY

Enter Accolade, a personalized health navigation and advocacy company. Its stated mission is to “empower people through expertise, empathy and technology to make the best decisions for their health and well-being.”[3] A 2018 case study report was commissioned through Aon to assess the medical utilization and claims savings impact as a result of this consumer engagement and personalized navigation model. For the purposes of this article, this solution is an improvement over a traditional consumer’s health literacy in the absence of any personalized or readily available information. The results and potential insights herein thus reflect considerations on the concept of improved transparency of a complex system through guidance and health literacy, and not necessarily opinions or recommendations on the efficacy specific to Accolade’s model or other such models and services in the market.
The Aon report,[4] entitled “Accolade: The Effect of Personalized Advocacy on Claims Cost,” reviews two different-sized self-insured employer groups: Employer A and Employer B. Employer A is a mid-size group of more than 10,000 members whose experience in the year immediately following their enrollment in the program was compared to a control group. Employer B is a large Fortune 500 population group of more than 100,000 members whose experience for three years after the implementation of the program was compared to the control group. The key items referenced in terms of the case study methods used in assessing the financial impact of each specific employer to a control group are:

- A pairwise matching technique for each program member, which was derived from a population of nearly 16 million employer plan members and was done to align a member’s demographic, geographic and comorbidity profiles. Overall, at least 99.8 percent of members were matched, and the remaining unmatched members were dropped from the study.
- Eligibility for both Accolade and control members was restricted to members age 0–64 with at least eight months of enrollment in a given year with complete medical, drug and mental health claims data.
- Large/catastrophic claims greater than $750,000 in a single year were excluded from both populations.

- Allowed claims data (prior to member cost-sharing) were analyzed in this review, and both employers maintained a plan design and network that did not materially change during the comparison periods.
- No adjustment was made to account for differences in plan design between the populations; however, the plan designs for the control population members were consistently between two and four actuarial value points *lower* than the employers being analyzed, such that financial impacts derived from this study likely are conservative.

IMPACT ON CLAIMS COST

So, do the clients in this case study actually see claims cost savings? Yes, the evidence suggests they do. While many studies are unable to use sufficient control groups in estimating claims savings, this particular analysis employs a rigorous matching process across a wide range of member-level characteristics to maximize an appropriate comparison for control. This gives the savings figures derived a level of confidence that does not exist with other studies touting claims savings—other studies often are based on benchmark/expected claims differences or simply regression-to-mean impacts on trend.

This model does not simply target high-cost, high-risk members. Perhaps health care consumers who are not currently high risk can become better at navigating and decision-making before they eventually engage with the system. Employer A saw a per-member-per-year (PMPY) savings of 6.5 percent overall in the year following enrollment with Accolade, while Employer B experienced a 2 percent to 3 percent per-year savings against its control group. While these savings aren't revolutionary, they suggest there is room for cost containment simply by educating and helping consumers navigate the health care maze while not reducing access to care or making access more onerous.

Another interesting aspect about this model is that it does not simply target high-cost, high-risk members. According to the case study, Accolade "engaged" between 60 percent and 65 percent of these clients' populations. In doing so, perhaps health care consumers who are not currently high risk can become better at navigating and decision-making before they eventually need to engage with the system more often. According to Accolade, its solution "uniquely integrates high-touch human interaction and advanced technologies to empower consumers to more efficiently and effectively navigate the health care system and get the right care at the right time."

As can be seen in Figures 1–6, the study does not show one singular driver or cohort in claims savings. Due to the high level of engagement, it seems this model is able to influence a broad spectrum of individuals on the health care continuum, indicating there is likely a gap in health care system navigation and literacy across all ages, demographics and comorbidities.

Figure 1: Employer A Cost Breakdown by Spend Category, 2016

Component	Employer A PMPY	Control PMPY	Ratio	Difference PMPY
Inpatient Spend	$1,077	$1,125	95.7%	-$48
Outpatient Facility Spend	$1,551	$1,597	97.1%	-$46
Outpatient Professional	$1,339	$1,585	84.5%	-$246
Drugs: Generics	$248	$269	92.2%	-$21
Drugs: Brand	$448	$441	101.6%	$7
Drugs: Specialty	$483	$488	99.0%	-$5
Total Difference PMPY				**-$359**

Source: Penev, Todor, Robert Tate, Garima Gupta, and Kim Ren. Accolade: The Effect of Personalized Advocacy on Claims Cost. *Aon,* October 2018 (accessed August 12, 2020).

Figure 2: Employer A Cost Breakdown by Age Group, 2016

Age	Employer A PMPY	Control PMPY	Ratio	% Members	% Costs
0–14	$1,988	$2,539	78.3%	14.7%	5.7%
15–29	$2,888	$3,011	95.9%	21.1%	11.9%
30–44	$4,528	$4,746	95.4%	20.8%	18.3%
45–59	$7,082	$7,503	94.4%	34.8%	47.9%
60–64	$9,684	$10,286	94.1%	8.6%	16.2%

Source: Penev, Todor, Robert Tate, Garima Gupta, and Kim Ren. Accolade: The Effect of Personalized Advocacy on Claims Cost. *Aon,* October 2018 (accessed August 12, 2020).

Figure 3: Employer A Breakdown by Number of Chronic Conditions, 2016

Chronic Conditions	Employer A PMPY	Control PMPY	Ratio	% Members	% Costs
0	$1,483	$1,840	80.6%	64.1%	18.5%
1	$7,311	$7,479	97.8%	24.5%	34.9%
2	$14,759	$16,707	88.3%	8.2%	23.5%
3+	$36,813	$34,588	106.4%	3.2%	23.0%

Note: For members with three or more chronic conditions, the difference is not statistically significant for Employer A due to the small sample size and the high volatility of these patients.

Source: Penev, Todor, Robert Tate, Garima Gupta, and Kim Ren. Accolade: The Effect of Personalized Advocacy on Claims Cost. *Aon,* October 2018 (accessed August 12, 2020).

Figure 4: Employer B Cost Breakdown by Spend Category, 2016

Component	Employer B PMPY	Control PMPY	Ratio	Difference PMPY
Inpatient Spend	$1,073	$1,027	104.5%	$46
Outpatient Facility Spend	$1,263	$1,289	98.0%	-$26
Outpatient Professional	$1,516	$1,607	94.3%	-$91
Drugs: Generics	$189	$222	85.1%	-$33
Drugs: Brand	$273	$350	78.0%	-$77
Drugs: Specialty	$448	$502	89.2%	-$54

Total Difference PMPY	**-$232**

Source: Penev, Todor, Robert Tate, Garima Gupta, and Kim Ren. Accolade: The Effect of Personalized Advocacy on Claims Cost. *Aon,* October 2018 (accessed August 12, 2020).

Figure 5: Employer B Cost Breakdown by Age Group, 2016

Age	Employer B PMPY	Control PMPY	Ratio	% Members	% Costs
0–14	$2,507	$2,534	98.9%	23.3%	12.3%
15–29	$3,331	$3,587	92.9%	22.7%	15.9%
30–44	$5,061	$5,265	96.1%	30.5%	32.5%
45–59	$7,397	$7,864	94.1%	20.8%	32.4%
60–64	$12,412	$12,224	101.5%	2.7%	7.0%

Source: Penev, Todor, Robert Tate, Garima Gupta, and Kim Ren. Accolade: The Effect of Personalized Advocacy on Claims Cost. *Aon,* October 2018 (accessed August 12, 2020).

Figure 6: Employer B Breakdown by Number of Chronic Conditions, 2016

Chronic Conditions	Employer B PMPY	Control PMPY	Ratio	% Members	% Costs
0	$1,690	$1,760	96.0%	68.9%	24.5%
1	$7,486	$7,769	96.4%	21.8%	34.4%
2	$16,511	$17,114	96.5%	6.6%	23.1%
3+	$32,647	$35,525	91.9%	2.6%	18.1%

Source: Penev, Todor, Robert Tate, Garima Gupta, and Kim Ren. Accolade: The Effect of Personalized Advocacy on Claims Cost. *Aon,* October 2018 (accessed August 12, 2020).

QUALITY OF CARE AND OUTCOMES

Cost impacts are just one of the obstacles the future of managed care needs to overcome. Quality of care and overall health outcomes are also high on the priority list when considering changes in the system. While the Accolade case study does not attempt to quantify quality improvements due to its engagement and navigation solutions, it certainly isn't a far leap to assume member satisfaction with such services directly correlates to perceived higher quality and better outcomes from the consumer's perspective.

Increasing health literacy likely improves consumer confidence, reduces anxiety and leads to better health care decision-making that should lead to overall better health outcomes and improved quality of care.
According to Accolade, it consistently receives net promoter scores (NPS) in the 60+ range (for context, health insurers are usually in the teens), and member satisfaction ratings generally are greater than the 90 percent range. This suggests consumers greatly appreciate the guidance, information and empathy provided on their health care journeys. Increasing health literacy and demystifying a complex situation likely improves consumer confidence, reduces anxiety and leads to better health care decision-making that should, in theory, lead to overall better health outcomes and improved quality of care.

EXPLORING SOLUTIONS

One of the big questions that needs to be asked when considering a solution to almost any problem is what exactly that solution is attempting to solve. The U.S. health care system has become a behemoth among behemoths, leading even the most innovative of companies and individuals to simply derive unique ways to create and apply bandages, plug holes or otherwise keep a sinking ship from capsizing through various one-off point solutions. Unfortunately, most of these solutions are unable to fundamentally change the problems in the system.

While companies that offer health care benefit navigation, guidance and simplification solutions can certainly add real value to their consumers, their value proposition only exists in the face of a complex, unwieldy health care system. If the system itself was simple, easy to understand and transparent for consumers, these navigation business models wouldn't be necessary. Certainly, solutions that attempt to help consumers through the health care maze are to be commended, but they do not materially change the maze's structure. Rather, these solutions acknowledge the fact that the maze exists, and people need help to exit unscathed.

IMPLEMENTATION CONSIDERATIONS

There are hurdles and risks involved with broadly implementing this type of solution for all consumers within the U.S. health care system.
Despite these considerations, what is necessary for such a model to be adopted and scaled? The basis of such a decision naturally leads to a cost/benefit analysis. On a small scale, it is obvious why an individual employer group would be interested in this set of solutions for the health of both its employees and bottom line. But what about executing and implementing this solution on a much larger scale? How would such a model gain adoption?

This particular solution acts as a high-touch platform that is proactive, data-driven and population-based. From a consumer's perspective, there are obvious benefits. Claims savings, while seemingly likely, may be highly variable and dependent on a variety of unknown factors outside of the scope of this article. Administrative costs were not disclosed in the case study, but they most certainly exist and would directly impact the viability of implementation.

There are hurdles and risks involved with broadly implementing this type of solution for all consumers within the U.S. health care system. While this list is certainly not comprehensive, it serves to provide a starting point in assessing the viability of long-term scaling as a means to improving health care literacy.

- Because this is a personalized experience attempting to address an entire member population, not just high-risk individuals, the model may be resource-intensive (high variable costs), and such costs may offset long-term gains.
- The resource-intensive nature would represent guaranteed cost with an uncertain return on investment (ROI), despite evidence from the case study that such ROI exists.
- Since this solution doesn't directly address system complexity, if executed nationally, there are likely many regional and other nuances that need to be considered to properly influence consumers and assist them with health care system navigation. This could prove to be difficult on a large scale if it lacks standardization. However, Employer B was a national employer with geographic diversity, which demonstrates the model is able to navigate those complexities.
- Since this type of model is predicated on navigating members through a complex system to drive savings, there is little incentive to improve the health care system itself. However, this model may shine a light on opportunities for innovation and simplification that could be driven by these advocacy companies, such as their open data-sharing platforms that share information and care protocols to provide an integrated experience for the member.
- The model does not provide a path for system self-correction, meaning that it could add perpetual costs to the system even if savings have plateaued once consumers' learning/literacy curves have peaked.

CONCLUSION

It's not a surprise to most that the U.S. health care system has become a confusing, expensive and opaque place for individuals seeking care. This case study shows personalized advocacy solutions can help by increasing member health literacy while driving cost savings for employers. The goal behind an advocacy solution is that members will have trusted resources to make more rational and appropriate health care decisions, which results in less waste and inefficiency in the system and should, as a result, reduce costs.

Personalized advocacy has demonstrated an ability to make progress toward this goal. While personalized advocacy solutions may not solve all structural and systemic health care issues in the United States, they are shown to ease a burden for both members and employers.

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Author's note: Accolade and Aon released a new study in January 2021. This study is based on six customers ranging in size from 2,000 to 80,000 members. Results are consistent between the two studies.
Statements of fact and opinions expressed herein are those of the individual authors and are not necessarily those of the Society of Actuaries or the respective authors' employers.

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