



# How to Improve Healthcare Payer Operations with Data

Andy Dé, Senior Industry Director for Healthcare and Life Sciences

## The Root Cause for Better Care

More than ever, the healthcare industry is challenged with corralling and understanding massive amounts of data to drive operational efficiencies and improve patient outcomes.

As healthcare payers adopt new practices to align with the value-based care paradigm, they are critically challenged with identifying root causes to solve issues in order to improve and sustain performance.

Many healthcare payer organizations are transitioning from old business models to a new risk-based approach, and will need operational frameworks that enable monitoring, measuring, and continuous process improvement to help drive new revenue opportunities, lower costs, and better enable efficiencies. Along the way, organizations are discovering operational excellence simply isn't possible without meaningful data insights.

Here are four ways leading healthcare payers are using data to modernize operations:

Enabling wellness and disease management with self-service analytics Increasing customer service effiiencies with real-time analytics

Improving healthcare worker productivity with data blending Powering ad-hoc analytics for claims management

## 1. Enabling Wellness and Disease Management with Self-Service Analytics

Self-service analytics allow healthcare payers to access and find insights from public health data sources like Medicare and Medicaid. These insights are used by healthcare payers to segment, target, and improve population health to drive wellness and disease management initiatives for their customers—who are patients.

By enabling anyone with the ability to explore public health data, any nurse case manager, analyst, business leader, or even a patient can see and understand the current state and risks associated with a portfolio of diseases.

If an everyday citizen can access and review a self-service dashboard with health and disease information about their specific issue, demographic or zip code, they are more empowered to proactively take the next best steps to seek treatment or implement preventative measures.

The federal and state governments can also use self-service to monitor, measure, analyze and improve impact for their health programs.

The Blue Cross Blue Shield Association (BCBSA), a national group of 36 independent and community-based companies, used self-service analytics to deliver a new population health index in November of 2016. The Blue Cross Blue Shield Health Index<sup>SM</sup> is a unique metric illustrating the state of America's health. The health index is powered by claims data from more than 40 million BCBS members, and it measures the impact of more than 200 common diseases.

## "

Blue Cross and Blue Shield companies are committed to transforming our healthcare system and the health of our nation through actionable data. This Health Index uses the breadth and depth of BCBS data to bring critical health insights to policymakers, community leaders, business leaders and healthcare professionals, helping them further focus efforts to improve their communities' health.

---- SCOTT SEROTA, PRESIDENT AND CEO, BLUE CROSS BLUE SHIELD ASSOCIATION (BCBSA)



# This self-service dashboard shows that depression, anxiety, hypertension, diabetes, high cholesterol, and substance use disorders are the top five conditions nationally, causing approximately 30% of insured Americans' overall reduction in health.

The BCBS Health Index is an excellent tool for improving healthcare payers operations because it offers population health segmentation down to a zip code level, and can proactively identify the counties with the highest risks for chronic diseases like hypertension and diabetes. This analysis can then help shape the programs for addressing these chronic diseases at a national, state, and county level.

Additionally, the self-service index brings critical health insights to policymakers, community leaders, business leaders and healthcare professionals, helping them further focus efforts to improve their communities' health.

## 2. Increasing Customer Service Efficiencies with Real-Time Analytics

Most healthcare payers offer web and mobile portals, as well as call centers, for customer service. However, most customers do not take the time to acquaint themselves with the capabilities of a self-service customer portal and choose to call a customer service representative instead. This common behavior generates higher demands on call centers for even trivial questions— which significantly increases the cost of operating the call centers, all the while the web and mobile portals remain underutilized.

Blue Shield of California, a nonprofit healthcare payer serving more than 3.5 million members, needed to make improvements with their customer service inefficiency. By monitoring and accessing real-time customer behavior data, they were able to compare their customer web and mobile portal metrics to their call center metrics.

Utilizing visualizations with real-time data, they found that only 12% of members access the self-service portal and these same members also drive more than 40% of the call volume. Sub-optimal usage of the portals increases the load on the call centers and dramatically drives up the cost of customer service.

By using real-time data, Blue Shield of California identified \$57 MM in potential in cost-savings. BSC then took action and created campaigns specifically to educate their customers on the capabilities and functionality offered by their self-service portals. Real-time data helped BSC-improve delivery of customer service and lower the cost of the operation.





This dashboard, crafted by Blue Shield of California, monitors, measures, and analyzes the behaviors of customers who access call centers in real-time. It is used for identifying efficiencies and cost savings.

#### 3. Improving healthcare worker productivity with data blending

Healthcare payer organizations accumulate massive amounts of customer data that's stored in silos across the entire enterprise. Connecting these islands of information is key to understanding a 360-degree view of each patient and their access to care. So the ability to aggregate and blend data across completely disparate data sources is key.

Empowering healthcare workers, like nurse case managers, with a single source of truth for each patient will offer more insights needed to improve productivity. Insights found with blended data can help nurse case managers better point patients to services or treatments, and reduce costs along the way.

For example, if a patient needs an additional service or test, a nurse case manager can pull up a dashboard with blended data to quickly discern what treatments the patient can have access too, and whether payers will cover it or not.

Blue Cross Blue Shield of North Carolina (BCBS NC) blends data across 13 different data sources, and delivers a holistic view of each patient to their case managers. This solution, named 'Minerva', was built from prototype to productized solution in just 90 days.

Activity an	nd Profile for M	ember			437-				AVS
JOHN	DOE		P001	The secto	Carried of Carried	Case Hanap	mort Flags		
Age Const 27 M	tor Barton and Darth								
Harry Phone	Transfer Street	Door Barrier Bartel Hotes	and the second	emeri lidea Solardin II Solardi	- Delatorable	Open Care 0			
		Harted	ENDER	VID Dubothe		Palmonary	Avaduator of Antibiolic 1	Finatment in Adults With A	0
Attributed P		Parator Impetat Center Pantly Unice		CMH m., ACO md. Segment Description In Yes The weathers Societides religionholds, and experi	in Ber US, 3king in Becmical ex ng al-Ruit He hins to offer	daylar			
dae Option	witta signi	Start Date: Coverage Phone (5) 12/0 utilities	ENP.	ETTer Description Satisfy of Bird, Maart Contet Drd, 1 Birling V	Benefit Details	Outpatient in Processory Unit	Activity - prior 34 month turn to see additional detail	il.	
Comp News	16 4 DUVE SHELD	Group Sim	Product In	enceptus Group Incentiv	it 🗌	Serve Des	Diag Ceda BM.STRAF MID MEMOLE IN	nica	
63		Large (252 - 809 Explores)	ASD GROU	P-LOCAL Nut		100014	\$31.3 - 75.45 MID MENDE 104	es-cut	
Western!	12 North	Bard Dian Const. Table Const.	and the second	Authorizations		879/2114	VS/1-PHIDOL THENHIN	61	
C I	TRACTOR STATE		<b>Manada</b>	Different Data	_	101/214	T172-DEWASPOST RED VE	0450.0	
58,728 0.82 161				Deprese Date Repeated Pool	Artitles	Areas in Lawan agos, countum			
Ardical Expense - YTD and Trailing 12 Months				NICCONSIN	<ul> <li>NO2014</li> </ul>	MARTINE TILLE MAKER UPIT LUMBALED			
		ling 12 Months Y71	a langer the	MPU MPU	HENT NO JAT ING DATTLY,	· Insuface Ac	their arise 14 months		
Algalant.		\$8,791.33		BRLU	WE DOTE ANY WO COUNTY FOR	Province Ity	Darb fit lase infollowed circle	h.	
hereny		3100.58	3100.58	601 U	NU (KURN TOW, MO ON/ARL				
-	trained \$199.76 \$411.07			BRI LAR (KTRA JON', WISH COUT.		<ul> <li>NX ACTIVITY</li> </ul>	Rx Activity - prior 24 months Accesses: the bars to see antitized defails		
	nd i	\$10 701 71 I	513 66	en c	WE DUTINE NO JUIT INCOMPILA.		C Party of the second second	PROPERTY AND INCOME.	_
arand Lot				8410	WEEKTRM NO JAIT MO DOAT	Building	A Dig hitse and	A CONTRACTOR OF A CONTRACT OF	_
arand Fot						tesiare .	RUTEAOONE PROPOSIIITE		
Frank Fot	Encounter Histor	Y		ETG Summary History		1958/0	KUTSKOH PROPONIT		-
2 Maesta 1	Encounter Histor e citale la ser addi	<b>Y</b> Annal Jecturis, Red High-alter are DR	ist.	ETG Summary History	nterrestantere la	125/2/2 6/32/2/2 5/0/2/2	KUTSKON PROPONITE KUTSKON PROPONITE SOCIOICUM HISLATE		1
Amend For	Encounter Histo e chelerto ser stall	Y anat details. Red indicates an Di a Service Details (1995)		ETG Summary History Dart D - Cont D - Dig Rose Cons De 2020115 - 2252115 - Visur distances		1958/0 5992/0 1958/0	AUTOROM PROPOSITE AUTOROM PROPOSITE DOVIDIOLINE HIGHATE BUILDAROM PROPOSITE	8 8	
America II America II	Encounter Histor r choir to see addi Figure 1 (choir Parriery	y and Antoin Rel scholes on D Denote Description Functional Processing	++1 0	ETG Sammary History Vart D. E. Gast D. Etg. Base Case To 202015 222275 Visual dimetations		1954010 6176270 3890270	KUTCADE POPOUT KUTCADE POPOUT DOVORUN PROVID RUTCADE POPOUTS PEDICINE		1
Arand Fot	Excander Histor - choir to on addi - Partney - Planney	y and Anton Individuals on Di Pustoa Provident Pustoa Department Ruthonous Provident Ruthonous Provident		CTG Summary History Start IS 🗟 End Is — Eng Rose Class The 2010295 — 2210295 — Visual dimetances 1228/2014 — 1228/2014 — Rodon exam	0	1938/3 678370 5393243	KUTOKOR PROPONIT KUTOKOR PROPONIT DOVIDIGUNE PROPONITS RUTOKORE PROPONITS PREDISIDIE SABURISTIS		1
Amenda I Amenda I Ame	Encounter Histo - cicle to ser stall Plantary Plantary Plantary Plantary	Y met anters fiel schuler or Di Patrix Protocol Fundazio Protocol Fundazio Protocol Fundazio Protocol Fundazio Protocol Berrorume vesaria	et 0 0	ETG Sammary History South IF End In Dy Gran Grans Da 2010H 2200H Visa distribution 12092H 12012H Robin com Resider Notes Inter Care Radius	0	100200 470200 300200 100204	KUTOROB PROPORT KUTOROB PROPORT DOVIDICAR PROPORT BUTCHORE PROPORT PROPORT SAMERTIN DOCESTION		
Amenda for Amenda for	Encounter Histor - Chain To ar addi - Chaine To ar addi - Planney - Planney - Planney - Planney	7 Marcia Antonia, Red Holocales an Di Marcina Description Rummonal Programmer Rummonal Pr	est 0 0 0 0	ETG Sammary History Rose to UP cod to Pop Gras Case Da 2013/01 220/011 Visar disortances 12/09/014 12/02/014 Rosher (case Resider Notes From Care Radius sources for roanto ser seas	0	1252254	KUTSUDE PROVUM KUTSUDE PROVUM DOVOCIJE HOLATE RUTSUDE PROVUM MEDISIJE SERIJITO DORECTION DORECTION		1
Arrand Fot	Encounter Histor Chaine to ser add Flammery Plannery Plannery	Y Annual James, And Andreador an DA Sector a Discontection Full Traditional Proprotoking Analysis and Proprotoking Control and Proprotoking Analysis and Proprotoking Proprotoking Proprotoking	**1	TG Summery History Control G. Kodon	0	1938/3 678293 389293 115294	KUTUSOBE PROPOSITI KUTOSOBE PROPOSITI DOXINGURE HIGHNE BUTOSOBE INCOME INCOMETTO INCOMETTO INCOMETTO INCOMETTO INCOMETTO		]
inand Fot	Decounter Histor control or excell Partnery Plannery Pedramon	Y  Terror Anton, Ref Inductor on D  Terror Antonio Reproduct  Terror Antonio Reproduct  Ontrovane Historica  Ontrovane Historica  Ontrovane  Onumer Internet  Onumer Internet	*t	LTG Summary History Dart N E Centre Dig Date Care the 2020215 202051 Unite distances 2020204 10202014 Date date Number Note Store Care Ratios Number The cost to use num decisi	0	1948/0 478/01 399/02 195/04 99/04 195/04	KUTSODE PROPORT KUTSODE PROPORT DOVINGAR PROPORT BUTCADE PROPORT PEDRADE SAMPETR DOVECTOR DOVECTOR DOVECTOR ADDRESS		
America I America I America I America I America Americ	Decounter History Color Law and Decounter Links Parmay Plannay Plannay Plannay Plannay Plannay Plannay Plannay Plannay Plannay	7 most details. Red techniques (D 20 Service Sectoristics Nucroscole Medicality) Concorrections Concorrections Concorrections Methodol (Medicality) Methodol Viewbars	000000	UTG Summary History Det 16 2 Ford to Pag State Class Di- 2020201 202021 Vibus dimensione 2020201 2020214 Rodine care Render Pattes State Care Rodits management the state built and ordain	0	1948/0 678370 589270 195274 38284 38284 38284 598870	KUTSADE PROPORT KUTSADE PROPORT DOCINIA PROVID RUTCADE PROPORT RUTCADE PROPORT RUTCADE		
anand Fot Adventis I Adventis I Adventis Advant Advant Advant Advant Advant Advant Advant Advant Advant	Decounter Histor Control for and Definition Plannary Plannary Plannary Plannary Plannary Plannary Plannary Plannary Plannary Plannary	Y and activity first rest-server ID or Second Secondaria fluctional Rest-based fluctuations interview interview rest-based rest-based Powersking Powerskin	**	LTG Saurnary History Tota (C.B. Coll (S. Cry Anal Course for 202019) 202019 Visual Antoneous 20202494 10202014 Radio accos Restore Totas Kron Care Radio Restore Totas to de tato accis		1958/04 2952/04 2952/04 2952/04 2952/04 2952/04 2952/04 2952/04	KUTSLOODE PROFOLUTE DOTIFICATE PROFOLUTE DOTIFICATE PROFOLUTE BUTCASDIE PROFOLUTE BUTCASDIE PROFOLUTE DEPENDENT DEPENDENT ACTIFICATION ACTIFICATION ACTIFICATION		
Z Muesta I Z Muesta I University I Statutes	Encounter Histor - Color to on add - Plannery Planner	Y mediates: Refeature (R) Francisco (R) Ruchaso (R) R		CIC Summery Fistory Test 15 <sup>2</sup> Existin Parkan Case De 202051 202051 Wine distances 005051 102051 Radie som Renter Notes fran Care Radia namer De car to se som ander		1948/0 4/10/201 349/201 715/2014 349/201 349/201 349/201 349/201 349/201		N N N N N N N N N N N N N N N N N N N	
Grand Fot 2 Month ( Stores to the Stores to the Stores to Stores t	Decounter Histor Planney Planney Planney Planney Perfectional Pofeccial Pofeccial Pofeccial Pofeccial Pofeccial	Annual Antonio Real Head and Annual Real Head and Annual Real Head Annual Read Annual Real Head Annual Rean Annual Read		CEC Sammery Filtery Toris D C Rober - On Dear Connector 2010/091 2010/191 - Visco Handware 2010/291 2010/1911 - Robert - Sammer Robert Notes Street Care Rations Robert The Earl Is we had receil	0	195000 478200 399000 1950254 3950254 3950254 3950254 3950254	KUTSKODE PROPOLIET DONONGUE HOOMUNT DONONGUE HOUMTE BUTCHGUE HOOMUNT PROVINCE SHAMESTIN DEGELTION ANTHONY SAL HELPSON ACTINOUS	N N N N N N N N N N N	
Grand Fot 2 Month ( Second Sec	Encounter Histor - choire to one adde - manage - Parmay Planmay - Planmay - Planma	Y med. Septem. The I washed was an ID med. September 2015 Septembe		CTG Sammary History Text ID (2) and ID (2) Up from Curst No 2010/051 2010/05 Van difference D2020/051 2010/01 Reader one Reader Maris Inter Annual Core Reads Reader Notes Inter Core Reads Reader Notes Inter Core Reads Reader Notes Inter Core Reads	0	Product (raging) (rag	KUTSADDE PROPOLIET DOLOGIAR PROPALIE DOLOGIAR PROPALIE RUNCADDE PROPALIE RUNCADDE PROPAUE RECEDENT SCHOOL RUNCADDE SCHOOL RUNCADDE RECEDENT RECEDEN	* * * * * * * * * * * * * * * * * * *	

#### The dashboard aggregates and blends patient data from thirteen disparate data sources—like demographics, group coverage, benefits, risk information, claims history, program enrollments, care gaps, and group incentives.

This single unified dashboard allows nurse case managers to quickly access patient insights in seconds, not hours. Not only does higher employee productivity ensure a better customer experience, it also improves costs savings.

#### 4. Powering ad-hoc analytics for claims management

Healthcare payers have to process millions of claims each year, and also screen these for fraud, waste, and abuse, which is often manual, tedious, time consuming, and fraught with human errors.

This involves capturing data from multiple, disconnected systems, cleansing and normalizing the data, and then analyzing the data to segment the covered patient population based on risk. Ad-hoc analytics helps claims managers answer their specific questions on a case-by-case basis more efficiently.



Optum, a subsidiary of United Health Care, is the largest healthcare payer in the U.S. Optum aggregates their claims data from its disparate IT systems, and uses ad-hoc analytics to deliver actionable insights on a daily basis to its C-suite, business leaders, and analysts.

With ad-hoc analysis and automation, claims monitoring now takes four hours instead of four weeks. With early warning indicators that are color coded for analysts to expedite resolutions, a Sankey diagram provides traceability of each claim by each facility/health plan between multiple Optum operational teams. Optum's Command Center dashboard has visible key performance indicators (KPIs) for real-time assessment of key metrics. Users can focus on rapid prioritization of contracts based on risk and proactively identify members who need escalated intervention and engagement.

Reports pertaining to health management, claims management, utilization management, provider relations are also shared with external healthcare provider clientele.

## Conclusion

Monitoring, measuring, and analyzing healthcare payer data will improve operations by increasing employee productivity, lower costs, and enable a risk-based approach to wellness and disease management. It will also secure new customers and improve patient outcomes. Finding efficiencies in claims management, patient safety, and compliance with data is easier than you think—and integrating self-service data visualizations into your healthcare operations and processes is even easier.

### About Tableau

Tableau Software helps people see and understand their data no matter how big it is, or how many systems it is stored in. Quickly connect, blend, visualize and share data dashboards with a seamless experience from the PC to the iPad. Create and publish dashboards with automatic data updates, and share them with colleagues, partners or customers—no programming skills required.

Begin a free trial today www.tableau.com/trial.

## About the Author

Andy Dé, Senior Industry Director for Healthcare and Life Sciences, Tableau Software.

Andy Dé is the industry strategist and solutions leader for healthcare and life sciences at Tableau. He has more than 20 years of enterprise software innovation strategy, portfolio management and go-to-market strategy, planning and execution experience at GE Healthcare, SAP, Health-Sciences and i2.

Tableau and Tableau Software are trademarks of Tableau Software, Inc. All other company and product names may be trademarks of the respective companies with which they are associated.

