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Building a Data-Driven Organization: What's Working & What's Next

SCOTTSDALE INSTITUTE **2022 ANALYTICS ROUNDTABLE**

March 2, 2022

Presented by:

Cerner®

Executive Summary

What does it mean to be a data-driven organization? There's seemingly a paradox in today's healthcare organizations of both too much and too little data: Too much in terms of sheer volume, with too many silos, locales and redundancies, but also too little in terms of usable, real-time, reliable details to drive wiser clinical and business decisions and stronger security protocol. The same Goldilocks-type ranking also can apply to the forces surrounding and facilitating these data: talent, technology, security, processes...is there too much? Not enough? Just right?

Toward this end, the Scottsdale Institute (SI) convened 56 participants from 36 organizations to discuss the steps, tools and techniques needed to become truly data-driven. Moderators from Cerner queried SI Members prior to the Roundtable to ask how they rated their organizations data-wise, where they were headed, and how they were planning to get there. A robust discussion ensued around key elements (people, process and technology), powerful impactors (culture, data literacy, hiring, data governance), and steps toward becoming a data-driven organization via:

- Improving process in healthcare organizations,
- Creating a culture that responds to and uses analytics well,
- Moving forward while avoiding stumbling blocks,
- Implementing best practices, and
- Assessing drivers of investment for future planning.

ROUNDTABLE PARTICIPANTS

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Jim Bradshaw, MPA, AVP-Healthcare Delivery Analytics, Intermountain Healthcare

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Audrey Schmidt, Interim Senior Director of Data, Reporting & Analytics, University of Michigan

Gagan Singh, Chief Data Officer, Ascension

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Moderator: Matt Frankel, Vice President, Analytics; **Jeremy Davis**, Senior Director, Analytics, Intelligence & Interoperability; **Pete Smart**, Senior Director, Analytics Product Management
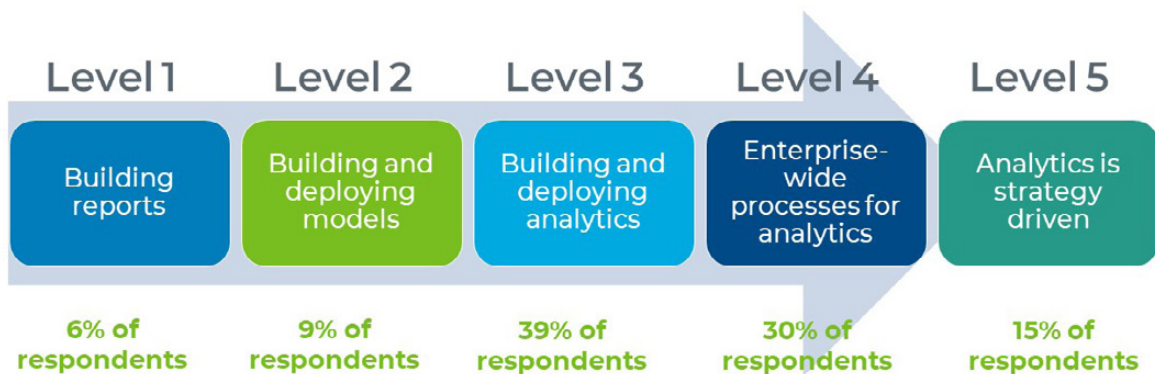
Writer: Karen Sjoblom

Introduction:
Data in Motion

There's seemingly a paradox in today's healthcare organizations of both too much and too little data: Too much in terms of sheer volume, with too many silos, locales and redundancies, but also too little in terms of usable, real-time, reliable details to drive wiser business decisions and stronger security protocol. The same Goldilocks-type ranking also can apply to the forces surrounding and facilitating these data: talent, technology, security, processes...is there too much? Not enough? Just right?

In preparation for the roundtable, discussion host Cerner conducted a survey to get a feel for where participants fell in their maturity models (*see below*).

Poll Question #1: Where do you fall today?
Analytic Processes Maturity Model (APMM)

Level 1	Level 2	Level 3	Level 4	Level 5
Building reports	Building and deploying models	Building and deploying analytics	Enterprise-wide processes for analytics	Analytics is strategy driven
6% of respondents	9% of respondents	39% of respondents	30% of respondents	15% of respondents

International Journal of Information Management: The Journal for Information Professionals. Volume 38 Issue 1 February 2018 pp 45–51. https://doi.org/10.1016/j.ijinfomgt.2017.08.005
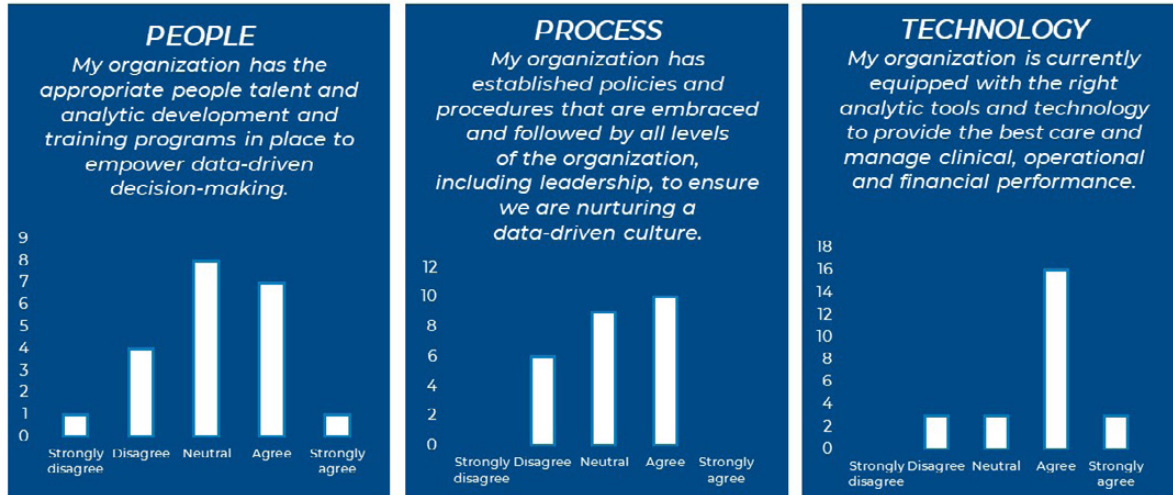
 Cerner

"These results are not that surprising; we've seen organizations get data in, generate models and report and produce a lot of stuff from a process standpoint," said **Matt Frankel**, Cerner Vice President, Analytics. "But it takes getting to Levels 4 and 5 to actually consume those reports and leverage the knowledge from them."

Another question (*next page*) considered how respondents compared themselves to their peers, and even to the broader industry market, outside of healthcare. "We can put the technology and the people sides of things in place, but process is more of a challenge," reported **Jeremy Davis**, Cerner Senior Director, Analytics, Intelligence & Interoperability. "We wanted to consider this as the baseline for our conversation because so many organizations struggle with this critical piece."

Shining Light on "Data-Driven"

"There's a quote from Gartner: 'Establishing a data-driven culture is a matter of influencing mindset and behaviors rather than of control.' I think this is interesting—not talking about technology or analytics, but rather culture as one of the most important things," Davis pointed out. "At Cerner, the culture has a big influence and seems to drive more progress than you'd imagine." Added **Pete Smart,** Cerner Senior Director, Analytics Product Management, "Culture isn't a tangible thing, so what does it mean to turn an organization, culturally speaking, to respond to and use data analytics?"

I think a lot of our organizations are data-rich; there's huge amounts in the EHR, but probably so much that no one knows where to start. When adding a layer of intelligence, we have to look at how to focus our energy on what's most important and question who's asking for data, how they will use it and where it will create impact. Redefining our criteria helps refine our approach.

– **Alan Weiss, MD**, MBA, FACP, VP & CMIO, BayCare Health System

For us, accountability looks like data governance: Our program asks six key questions around accuracy, accountability, etc., which help us scale analytics on top

of that. We focus on the analytics versus getting stuck on the questions, and also have non-IT people deciding which data are necessary for the organization.

– **Adnan Jafri**, MSc, Director-Enterprise Data Governance & Operational Excellence, Atrium Health

As others have said, it's hard to measure culture. What we focus on is more change management and implementation science. Being data-driven suggests we get "pushed" into a direction by data, but I'd like to change the narrative—to be data-led, which means leadership culture also has to change and embrace a data-first culture.

– **Brian Young, MD**, MBA, MS, System Physician Informaticist, CommonSpirit Health

Maybe it's a move from a data-driven to a data-centric culture. Data has to be properly managed from the point of entry, which is part of governance, so it can be used for making decisions in real-time.

– **Roopa Foulger**, VP Digital & Innovation Development, OSF Healthcare System

> *We talk about "data-driven" but we're at a point where capturing and standardizing data keep us focused on the wrong thing. We need to focus on the actual use of it.*
>
> – Matt Frankel,
> **VP Analytics, Cerner**

Removing the Barriers

A 2021 NewVantage Partners Survey around Big Data and artificial intelligence (AI) revealed the following key insights from organizations.

- 48 percent are driving innovation with data
- 41 percent are competing on analytics
- 39 percent are managing data as a business asset
- 30 percent have a well-articulated data strategy for their company
- 24 percent (each) have forged 1) a data culture and 2) a data-driven organization

But even with such momentum, concerns arise:
Are we ready for change? How do we demonstrate value/ROI? Do we have the talent and resources to execute our plans? Do I really need a Chief Data Officer? Is our technology a barrier or an enabler?

"The NewVantage survey comprises both healthcare and non-healthcare organizations...so it's not like healthcare is struggling in a vacuum," Davis explained. "But interestingly, our Roundtable poll (*right*) suggests culture is weighted more heavily as a barrier. So how are your organizations handling the challenges involved in becoming data-driven while getting rid of the stumbling blocks?"

Culture really stands out for me. Metrics can help change behaviors; however, if we put things out there to track behaviors and become like Big Brother, that's detrimental. We have to communicate why we're tracking metrics, and why they're important, as part of the culture.
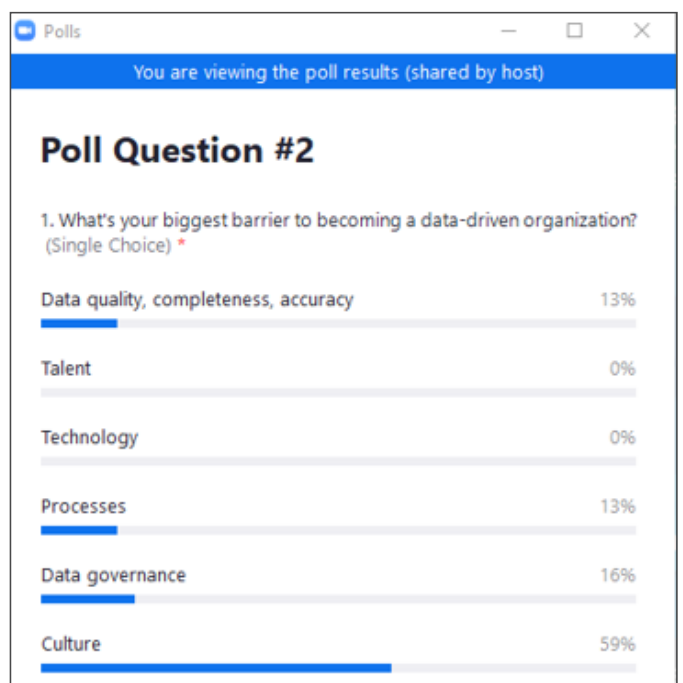
– **Randy McGlothin**, Director, BayCare Health System

I use the analogy of having two cars in my family. One is more zippy, one is more sluggish: They'll both get us where we need to go, but the reactions are different. In my organization, some leaders are data-driven while others are less data-aware. Not everyone has the training and trust to get on board, so we have to start at some point in the journey to better explain how things work and what folks can expect.

– **James Gaston**, MBA, FHIMSS, VP Enterprise Data & Chief Data Officer, Parkland Health

I'm a clinician who practices medicine but also leads an IT org. We in IT have tried to move ourselves from being the people who push data out to having people pull it from us. We want to train people to determine what they best need from us.

– **Ash Goel, MD**, SVP/CIO, Bronson Healthcare

Poll Question #2

1. What's your biggest barrier to becoming a data-driven organization? (Single Choice) *

Data quality, completeness, accuracy	13%
Talent	0%
Technology	0%
Processes	13%
Data governance	16%
Culture	59%

A big barrier is accountability: Who's accountable—the ops team? The clinical team? We're trying to align across different markets of accountability and different steps of the process. We've had some success from collaborating with different stakeholders, and in the past have tried to ensure an analytics team member was at important meetings. It was a trust thing, to be able to listen in and help problem-solve. It takes longer but builds trust: Then it's not someone who's interested in just clinical or just data.

– **Karthik Raja**, MS, SVP & Chief Data Science Officer, Ascension

Implementing Best Practices

In considering the wisest ways to move the data needle, Cerner moderators focused on **people**, **process** and **technology** to encourage participants on next steps. Further, Smart challenged attendees on centralization versus decentralization, while Frankel raised the benefits of "clinically savvy" talent. When hiring, it's key to consider data literacy and those demonstrating data influence to strengthen the long-term culture—not to mention balancing technical and soft skills. Toward this end, participants weighed in.

ON PEOPLE: LEADERSHIP, STRUCTURE, LITERACY, HIRING CULTURE

Having a medical/clinical perspective on the data allows us to see things in a different light. It's really powerful to work together to bring forward information, and to know we need this slightly different angle because it's clinically important to us.

– **James Douglas, DO**, Regional MIO, Southern and Mid-Maine Region, Northern Light Health

I look at data literacy as the ability to turn insights into actions. If there's a gap there, it can be a barrier.

– **Paul Lampi**, Director, Technical Services, Memorial Hermann Health System

The one I gravitate toward is the lack of a Chief Data Officer. Having such a leader shows the organization that they believe in what data and analytics can provide, drive and lead moving forward.

– **Pete Smart, Sr. Director, Analytics Product Management, Cerner**

One key thing I'd mention is culture. I feel it's so important that executive leadership support data governance. We're lucky in that it's ingrained in what we do. If executive-level engagement is not there with regard to standards and priorities, it can be an uphill battle.

– **Randy Albert**, MBA, VP-Finance | Operations & Analytics, Northern Light Health

ON PROCESS: DATA GOVERNANCE, DEFINITIONS, REPORTING STANDARDS, PARTNERSHIPS

Data Governance is a participative process across the business. We are in the process of hiring a CDO to parallel my role in analytics. One of the things we will be hammering out is which aspects of data and analytic governance will be led by each function. Fundamental data quality will likely reside in IT, while governance of analytic artifacts will likely stay in analytics. A critical process in our data governance structure is controlling how and when critical data, including PHI, leaves our four walls, and being active about managing data transfer to ensure we're covered from a privacy, legal and risk standpoint.

– **David Torgerson**, MBA, VP, Enterprise Analytics, Sentara Healthcare

What does it look like to be successful at using data? We've adopted the construct of decision intelligence and have developed a masterclass around helping caregivers evolve from understanding data to effecting change.

– **Greg Nelson**, FACHE, MMCi, CHCO, CPHIMS, AVP, Analytics Services, Intermountain Healthcare

At Michigan Medicine, we've developed a data governance program jointly with our business partner, organized into four oversight committees (Clinical, Administrative, Research, Education), to accommodate the various cultures and priority of topics.

– **Audrey Schmidt**, Interim Senior Director of Data, Reporting & Analytics, University of Michigan

ON TECHNOLOGY: TRENDS, CLOUD, BIG DATA/AI

We have a program for the digital experience and new technologies. Because of its importance—not just tech and reporting, but people and process—we have a task force around the digital experience. We surrounded this purposely, not as an afterthought, as part of our strategy. Whenever we're working with a new technology, we ask whether it fits with our strategy and how we should bring data in; otherwise, if it's not integrated, it will be a nightmare.

– **April Giard, DNP**, MSN, NP-BC, NEA-BC, System SVP & CDO, Northern Light Health

We find there are many technology solutions (Q3, right) but there's a big variability within the organization. This makes it harder with many commercial, off-the-shelf solutions that solve a specific business problem; connectivity across disparate technology solutions is a big challenge.

– **Gagan Singh**, Chief Data Officer, Ascension

I've seen more "data wars"—fighting about decisions and how data is used— versus establishing relationships to understand the business's priorities and how to achieve them collectively and collaboratively.

–Jeremy Davis, Sr. Director, Analytics, Intelligence & Interoperability, Cerner

Poll Question #3

1. Technology is the least of your problems when it comes to building a data-driven organization. (Single Choice) *

True	84%
False	16%
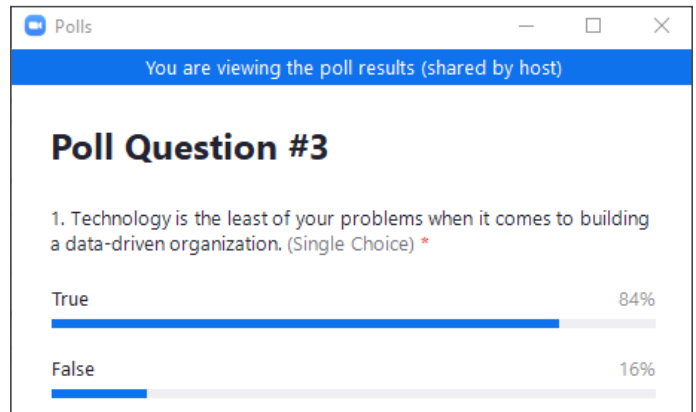
Moving with Purpose

In its pre-Roundtable survey, Cerner queried Members on their organizations' prioritized drivers of investment (*see graph*), and the results were to be expected given today's healthcare climate.
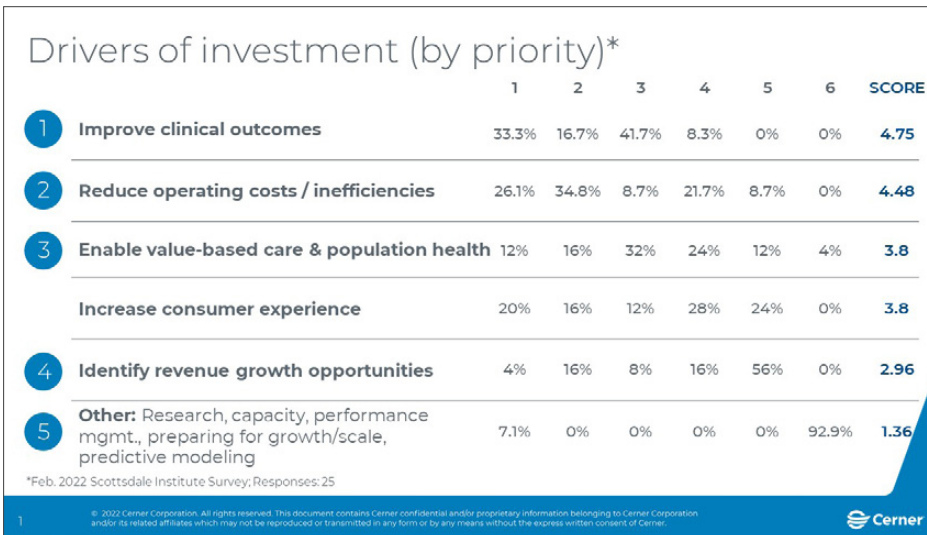
That said, the moderators noted some of the industry's emerging trends—including composable analytics, trusted healthcare AI, bedside predictive analytics and the "data-augmented" clinician—that could directly impact (and benefit) organizational efficiencies. In the end, Cerner suggested that preparing for a different future entailed four key steps:

1. **Start with culture to drive people and process**
2. **Align to organizational goals**
3. **Deliver focused wins**
4. **Scale with self-service**

"Possibly like so many things, it's a journey that starts with becoming data-aware, then progressing to data-literate and then to data-influential, when a user learns to influence a data point (numerator or denominator)," summarized James Gaston, VP Enterprise Data & Chief Data Officer, Parkland Health. "Then we can move on to data-led, where a user controls a metric or KPI and knows the specific behaviors and processes that lead to a given performance, thus weighing the costs and benefits to get to a certain performance. That, then, lands us at a place where we're truly data-driven."