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Today's payers aim to do more than just adjudicate and settle medical claims; they support providers and patients with a more coordinated care experience and make informed clinical and business decisions based on data that best meets the needs of their members.

Unfortunately, legacy data infrastructure makes it difficult to bring disparate data sets together for timely and informed decision-making. Internal data remains in silos, and it's difficult to extract value from external data sources without substantial investments in data science expertise and infrastructure.

Cloud-based data platforms offer an opportunity to host harmonized data sets securely, making data readily available for real-time analysis that offers valuable insight to internal stakeholders as well as providers. With payers and providers leveraging the same data set, it's possible for both entities to set shared goals for care coordination and value-based reimbursement.

The challenges of the current landscape

Data analysis plays a critical role in health plan operations, influencing strategies surrounding settling claims, managing denials, contracting with provider organizations, containing costs, engaging with members and improving medical loss ratio. Traditionally, payers have conducted analyses using data sets that are curated and stored with the intent to meet a particular business objective without a broader context

Unfortunately, this has resulted in a state of data fragmentation which is inadequate for meeting the requirements of contemporary health plans. Initiatives such as population health management and care coordination, price transparency mandates and value-based reimbursement all require the ability to access a longitudinal data set that includes clinical, financial and operational data – often from numerous sources.

“Analytics tends to be limited due to data fragmentation and lack of standardized digitalization,” said Meltem Kutik, Senior Director of Growth Strategy at Innovaccer. “Payers are chasing and cleaning data sets, or they are creating data sets manually for different use cases.”

This challenge that data fragmentation poses only has a snowball effect, as it's both time-consuming and expensive to fix using legacy technology and hinders those initiatives in the shift from fee-for-service to value-based care. This has a downstream impact on payers'

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innovation efforts: A 2017 [survey](#) concluded that nearly 6 in 10 healthcare leaders see lack of data and insight into the true cost of care as the biggest barrier to achieving sustainable cost reductions. ^[i] It also impacts healthcare spending as a whole, contributing to the administrative complexity that has been [linked](#) to more than \$265 billion in unnecessary annual healthcare spending in the United States.^[ii]

The promise of data analytics in healthcare – and the key obstacles

As a Brookings [report](#) indicates, data analytics has transformative potential in healthcare, but numerous challenges stand in the way of widespread adoption among payers as well as providers.^[iii]

Opportunities	Challenges
<ul style="list-style-type: none"> • Routine remote monitoring of health status • Newer, more sophisticated quality metrics • Real-time clinical decision support • Precision medicine based on genetic information • Data-driven public health policy and budgeting 	<ul style="list-style-type: none"> • Unstructured data and prevalence of disparate data formats • Unavailability and inaccessibility of relevant data sets • Disruption to clinical and operational workflow • Misaligned quality and cost incentives • Lack of enterprise-level data analytics and governance strategies

The data that payers need is in silos

To better manage member care and improve the member experience, payers depend on access to internal and external data sources which include clinical, social and behavioral data. Working with both types of data sets presents its own set of obstacles.

Internal data sources – often remain stored in standalone, decentralized business systems. Data is applied to its specific use case – member engagement, claims, premiums, drug formularies and copayments and so on – and is not shared with other business

applications from which additional insight could be derived. It's also not uncommon for payers to use systems that were home-grown and/or custom-built by consultants, have not been updated in decades, sit on an on-premises mainframe and offer no readily accessible way to trace how data flows through the system or may be modified as it is used.

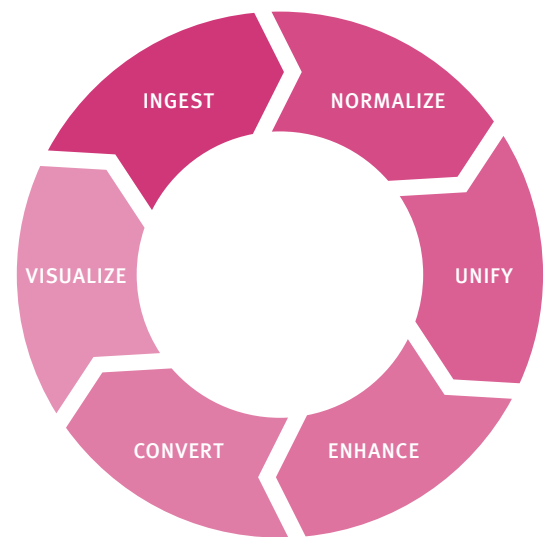
External data sources – whether the data comes from electronic health records (EHRs) from providers, patient-reported or -generated sources, or a wide range of public health databases – it sits outside the payers' data stack. The data has potential value to offer, and is are easy for payers to obtain, but the data formats are largely incompatible with payers' business systems. This means that data analysts may not be able to use external data once they have it.

Breaking down silos takes time and resources

The easiest way to address the challenge of data silos is to break them down and bring disparate data sources together into a single, centralized data set. However, this is a significant and resource-intensive undertaking.

Creating a centralized data set involves six key processes.

1. Ingest data from each source.
2. Semantically and syntactically normalize data to a common format.
3. Bring data into an extensible and unified data model.
4. Enhance provider performance with accurate and actionable data to help meet quality, cost, satisfaction, and compliance objectives.
5. Convert data to the Fast Healthcare Interoperability Resources (FHIR) standard so that it can be exchanged with and used by other applications.
6. Leverage analytic and create data visualizations that enable stakeholders to monitor performance and progress at a glance.



“You have to invest in multiple solutions, and that only contributes to the presence of additional silos,” Kutik said. “You need to build expertise in using the new solutions, allocate resources to implementation, and manage and maintain multiple solutions. And if they’re not integrated out of the box, that can pose an even greater challenge.”

Data silos are a roadblock to value-based care

Fragmented data sets and business systems stand in the way of providing payers with longitudinal insight into both individual members and entire populations. This matters for three key reasons:

1. At an individual level, this makes it difficult for payers to support coordinated care efforts, as they are relying on months-old stale claims data and not recently updated EHR or patient-generated data.
2. At an enterprise level, this creates a roadblock to initiating or expanding value-based care efforts, as payers struggle to identify the potential quality, clinical and financial benefits of value-based programs across various population segments.
3. Instead of working with a shared data set, each entity is working with its own data set which makes it difficult for payers and providers to align incentives under value-based care arrangements. This can lead to disagreements over important drivers of value-based care efforts such as care quality metrics, patient health risk scores, and clinical outcome improvement.

Addressing the many problems posed by data fragmentation is a priority for payers, especially those making the transition to value-based care models. Solving those problems with home-grown solutions or a series of one-off business systems may do more harm than good. Leveraging a cloud-based data platform provides a flexible, scalable and cost-effective alternative.

“The healthcare industry is moving toward payers becoming more involved in the member care journey, and there’s a lot of increased collaboration with providers,” said Kangana Mehta, Senior Director of Growth Strategy, Payers at Innovaccer. “The accessibility and real-time availability of data has been a huge issue. But there’s a tremendous value proposition. If you can solve these issues, you create a paradigm shift in collaboration. You’re both looking at the same source of truth.”

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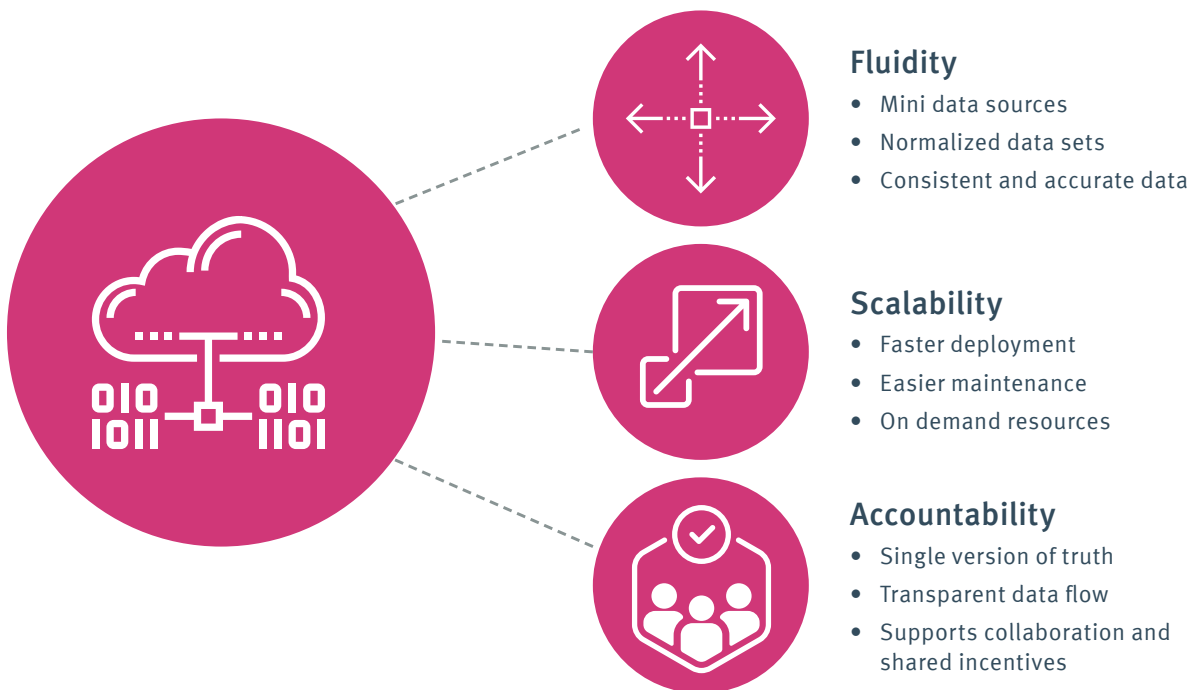
The benefits of a cloud-based data platform

At its core, a cloud-based data platform serves as a hub of data from disparate sources – payer, provider, member, employer, pharmacy, lab and so on – that would otherwise remain in on-premises silos. Beyond the savings on hosted infrastructure, the cloud data platform offers users the longitudinal view of health data that they have been missing, enabling the extraction of insights that drive evidence-based decision-making.

Microsoft Azure is the cloud data platform of choice for hospitals, health systems, payers and government agencies across the world, allowing for the aggregation of data from medical claims, pharmacy claims, EHRs, other clinical sources, labs and non-clinical sources, including social determinants of health. The cloud is transforming the flow of data and this enhanced flow of data enables even more compelling capabilities including Artificial Intelligence.

The opportunities of Artificial Intelligence for both payers and providers can result in automated and intelligent workflows which aim to improve efficiencies, transform documentation and predict outcomes. Both KLAS Research and Frost & Sullivan have recognized Microsoft as the leader in the healthcare artificial intelligence (AI) market.^[iv]

Working with a cloud data platform offers three core sets of benefits to payers: data fluidity, scalability and accountability.



Benefit #1: Data fluidity

“The cloud data platform enables the ingestion of data from various sources – and once it’s on the platform, it’s no longer fragmented. You’re no longer limited to the internal data sets that you’ve traditionally used,” said Amy Berk, MSN, RN, Director of Population Health, Microsoft.

“In addition, data sets no longer need to be scrubbed manually, enabling data science teams to begin working with data almost immediately. You have this comprehensive view of members, and then you’re able to use the various sources of data that data to extract insights for meaningful action,” Berk said. “That’s where the cloud is an enabler.”

The use of normalized data sets ensures that all stakeholders (internal and external) are consistently working with the same facts. This removes a common source of tension between stakeholders – particularly payers and providers – who often have their own data sets to track a particular metric (such as clinical outcomes, care quality, or cost) that may contain conflicting data points. Instead, payer and provider coordination and collaboration is facilitated to harness optimal health outcomes.

Using a normalized data set also offers a practical benefit. Since data resides on a single cloud-based platform, any changes or updates to a data set appear to all users, not just the individual working with the data at that moment. This provides platform users with peace of mind knowing that the data they are looking at is consistent, up to date and, above all, accurate.

Benefit #2: Scalability

Payers that transition from on-premises to cloud-based infrastructure can expect significant savings over time when it comes to deployment, operations and maintenance. Cloud-based systems also offer better flexibility than home-grown or on-premises tools.

“Payers have a mature IT landscape. They have made significant investments in in-house tools, but they haven’t factored in the need for on-demand scalability,” Kutik said. “That’s a limitation of legacy systems.”

This scalability makes it possible for payers to manage more members more effectively using fewer resources than their traditional business systems. Beyond supporting existing operations, this positions payers to prepare for significant growth, whether through expanding services,

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acquiring plans or ramping up member acquisition efforts. Where technology had once been a barrier to growth, it can now serve as an enabler.

Benefit #3: Accountability

Traditional decision-making had to rely on a single data set. Looking at member cost data, for example, required pulling up medical claims, pharmacy claims and premiums in separate files. The single version of truth that is possible with the cloud data platform drives much more powerful decision-making. Not only can all types of cost data be viewed at once; the cost data can be viewed in concert with clinical data, quality data and other data sources that payers normally cannot access. This enables payers to develop and implement business strategies beyond cost management to include managing risk, closing care gaps, addressing unmet clinical and non-clinical needs, and so on.

Leveraging a single version of truth also provides accountability and transparency. All stakeholders are using the same data for analysis and decision-making, see how data flows across the platform, and know when changes to a data set have been made. This is a core component of payer-provider collaboration and value-based care. With both entities looking at the same data, they are well positioned to agree on shared incentives and achievable outcomes, as everyone is aligned on which data sets are used to calculate which metrics.

“In healthcare, we know that certain behaviors will lower costs and maintain or improve quality – and data drives the whole process,” said Rick Christiansen, Senior Director of Market Development, Payers, at Innovaccer. “Payers won’t drive behavior change if they’re using data on their own. They need to collaborate with other stakeholders, provide the right incentives to physicians, and deliver those incentives on time.”

With a cloud data platform in place, payers can achieve what the consultancy West Monroe [describes](#) as “insight democratization.” Such an approach makes insight available to subject matter experts quickly regardless of business function. It also supports decision-making across the enterprise in a standard and equitable way.^[v] When stakeholders across the enterprise embrace this approach to decision-making, payers can transition from simply analyzing data to generating meaningful and actionable insight from data.

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Key characteristics of insight democratization

West Monroe defines “insight democratization” as an approach that makes data available to the right stakeholders and the right time, with datasets and analytics decentralized and core KPIs well-defined and understood throughout the organization. This approach has several foundational characteristics:

- Leverage a data platform to reduce the time from obtaining data to generating insight
- Align the data platform to core business functions
- Ensure data persistence so that stakeholders trust that data is accurate, consistent, and accessible
- Develop reusable modules that enable automation and the generation of easily repeatable insights

Taking data to the next level with actionable insights

As payers initiate or expand value-based care initiatives, there are two core sets of business objectives that must be met. On the operational side, payers must track numerous performance metrics tied to value-based care success. On the clinical side, payers seek to extend and enhance care coordination. Actionable insights derived from the application of advanced analytics to a shared, longitudinal cloud-based data set can help payers meet both sets of objectives and further evolve their approach to value-based care.

The Innovaccer Health Cloud, hosted on Microsoft Azure, helps healthcare organizations leverage disparate data sources for evidence-based clinical, financial and operational decision-making. More than 10,000 organizations use the Innovaccer Healthcare Cloud to activate healthcare data to drive whole-person care, improve care quality and outcomes across various stages of the care continuum, and accelerate healthcare transformation.

“We think of the Innovaccer health data platform as being like a car chassis that can be modified based on your organization’s data analytics needs,” Christiansen said. “One day you may need a 4x4 to drive in the mountains. One day you may want a sports car to drive along a

83%

expect patient-generated data from wearables, apps, and sensors to be integrated with care delivery^[vi]

straightaway. One day you may need a minivan to drive around several people. Innovaccer uses the same data foundation to meet different payer data needs.”

Operational objectives: Performance monitoring across multiple domains

Payers participating in value-based care must monitor contract performance across multiple domains, including but not limited to the following:

- Care quality and health outcomes under the Healthcare Effectiveness Data and Information Set (HEDIS)
- Member experience metrics under the Consumer Assessment of Healthcare Providers and Systems (CAHPS)
- Overall performance under Medicare Stars ratings
- Member health risk under the Medicare risk adjustment factor (RAF)
- Provider performance on metrics such as out-of-network referrals, off-formulary prescriptions and population health

These metrics determine a payers’ reimbursements from the Centers for Medicare & Medicaid Services (CMS). They impact whether hospitals or health systems choose to work with a health plan. They also influence member decisions to renew their insurance. In other words, they are critical for payer operations and growth.

The availability of a shared cloud-based data set allows payers to track these metrics in real time, without the lag associated with legacy systems. This sets the stage for robust analytics that identifies trends and predicts performance that could influence long-term strategy development. This provides executive leadership a 360-degree view across the enterprise and enables informed, data-driven decision-making with an eye toward sustained growth and profit margins.

Data for real-time insight and a 360-degree patient view

All too often, providers receive retrospective information from payers. They could receive an alert that a drug is no longer covered days after it has been prescribed, or they may receive reports on patients who

84%

expect clinical care teams to share patient health data in a secure, streamlined, and timely way

had joint replacement months after their procedures happened. Just as payers rely on real-time insight to drive value-based care performance management, so, too, do providers.

The cloud data platform also comes into play for providers. As they are accessing the same data as payers, reports and recommendations that pertain to their value-based care contracts can be updated in near real-time, not weeks after the fact. What's more, their EHR systems can tap into the data platform and receive alerts at the point of care – thereby avoiding the out-of-network referral or the drug no longer on the formulary. Finally, tools such as natural language processing (NLP) can be layered on top of the data set to add value by extracting insight from free-text clinical notes and other unstructured data sources that often go unread.

The biggest benefit, undoubtedly, is the 360-degree view. Providers are no longer limited to their EHR data. Data from claims, employers, labs, patient-generated sources and even other health systems provides a complete view of the patient. This paves the way for improved diagnosis and treatment decisions, allowing providers to offer the right level of care at the right time.

Physicians see care models changing to make way for data

The vast majority of physicians expect health data to become a part of standard clinical practice in the next 5-10 years. Among 680 physicians [surveyed](#) by Deloitte in 2020:

- 84% expect clinical care teams to share patient health data in a secure, streamlined, and timely way
- 83% expect patient-generated data from wearables, apps, and sensors to be integrated with care delivery^[vi]

“Patient preferences for where they seek care are going to evolve. Payers can’t just look at the financial and operational side of healthcare anymore. They need to create a marketplace of data, information, and care capabilities that can serve patient preferences beyond the primary care and inpatient setting,” Mehta said. “When this happens, payers can build a more trusting relationship with both providers and patients.”

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Accelerating the move to value-based care

CMS is pushing for 100% of Medicare reimbursements to be tied to value-based contracts by 2025. Currently, less than 20% of Medicare spending meets this qualification. The liability insurer Coverys [estimates](#) that meeting the CMS goal will require a shift of \$1 trillion in financial risk.^[vii] Meanwhile, Deloitte [estimates](#) that 97% of physicians still rely on fee-for-service contracts for their compensation, compared to 36% who draw compensation from value-based contracts in some form.^[viii]

Given the deadline that CMS has put in place, the industry has a long way to go to transition to value-based care and not a lot of time to do it. One of the biggest obstacles to date has been a fragmented healthcare data ecosystem, with data sitting in siloed on-premises systems and inaccessible to other stakeholders who could derive data from it. However, the emergence of cloud-based health data platforms makes data not only accessible but standardized and ready for analysis – allowing payers, providers and other collaborators to view a single version of the truth, align incentives and reap the benefits of shared savings.

The Innovaccer Health Cloud, hosted on Microsoft Azure, gives payers the data platform they need to gain a longitudinal view of individual members and entire populations, enabling them to make steadfast, informed decisions – and to help the providers in their network do the same. This helps reduce the cost of care while improving care quality, patient experience and provider experience – all of which are cornerstones of value-based care.

Contact Innovaccer to learn more about our data activation platform and the advantages of the healthcare cloud powered by Microsoft.

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- i. HealthLeaders Media, “Cost and Revenue Strategies: The Need for Transparency and Understanding True Costs.” June 2017.
 - ii. William H. Shrank, M.D.; Teresa L. Rogstad, and Natasha Parekh, M.D., “Waste in the US Health Care System: Estimated Costs and Potential for Savings.” Journal of the American Medical Association, Oct. 7, 2019.
 - iii. Brookings. “The opportunities and challenges of data analytics in health care.” Nov. 1, 2018.
 - iv. Tom Lawry and John Doyle. “KLAS recognizes Microsoft’s momentum in healthcare AI.” Microsoft, Feb., 8, 2021.
 - v. West Monroe. “Why health payers need insight democratization to unlock the value of data.” September 2021.
 - vi. Deloitte, “Equipping physicians for value-based care.” Oct. 14, 2020.
 - vii. Coverys. “Red Signal Report – Value-Based Care.” Aug. 18, 2020.
 - viii. Deloitte, “Equipping physicians for value-based care.” Oct. 14, 2020.



Innovaccer Inc. is a leading San Francisco-based healthcare technology company committed to helping healthcare care as one. The Innovaccer Health Cloud unifies patient data across systems and empowers healthcare organizations to rapidly develop scalable, innovative applications that improve clinical, operational and financial outcomes. Innovaccer’s solutions have been deployed in more than 1,000 care settings in the U.S., enabling more than 37,000 providers to transform care delivery and work collaboratively with payers and life sciences companies. Innovaccer has helped organizations integrate medical records for more than 24 million people and generate more than \$600 million in savings. Innovaccer is recognized as a Best in KLAS vendor for 2021 in population health management and a No.1 customer-rated vendor by Black Book. It recently received the Patient Cost Savings award at the 2021 UCSF Health Awards.