



# A modern approach to provider data management

healthcare and life sciences



**A**ccurate provider data is critical for operational performance by healthcare providers to realize consumer satisfaction. Health payers are now facing stiff penalties for erroneous or out-of-date provider information – particularly when such information is published to plan members. A plan may be exposed to additional liability if a member claims erroneous data leads to incorrect plan or provider selection, or otherwise contributes to poor service or care.

When managed proactively, an increase in provider data quality and reduced time between data submission and use can lead to improved provider directory accuracy, more accurate claim adjudication and reimbursement, as well as greater overall member and provider satisfaction. A standard of excellent stewardship of provider information lays the foundation for provider engagement and collaboration on cost savings and wellness initiatives.

This paper provides an overview of the challenges healthcare organizations face while managing provider data and recommends an approach to achieving Provider Master Data Management (MDM) that should be considered when establishing a sustainable provider data management process and platform.

## Provider data challenges

The Center for Medicare and Medicaid Services (CMS) introduced new rules for payer provider directory accuracy due to a transforming healthcare industry. Starting in 2016, CMS requires that payers must publish an up-to-date, accurate, and complete provider directory, including the provider's location, contact information, specialty, medical group, and any institutional affiliations, and new patient acceptance status. A letter sent by CMS on February 20, 2015 reinforced these requirements<sup>1</sup> and detailed stiff penalties: a maximum of \$100 per day per individual

adversely affected by a non-compliant Qualified Health Plan (QHP) or dental plan and up to \$25,000 per day per Medicare Advantage beneficiary.

Prompted by beneficiary complaints and congressional inquiries, CMS launched a study in late 2016, and determined that nearly half of 11,646 provider locations in the study contained errors. Among the 54 organizations researched, online directories were only 20% to 60% inaccurate.<sup>2</sup> A 2016 study conducted by Optum found similar results.<sup>3</sup>

### Health Payers' Constant Challenge: Provider Data

<b>30-50%</b>	Inaccurate
<b>20%</b>	Physicians change address and/or phone number
<b>30%</b>	Change health plan, hospital or group affiliations
<b>5%</b>	Status changes (licenses, sanctions, retirement)

Source: Provider directory data management, 2016, Optum

Lack of data integration and management also damages a payer's ability to differentiate itself in the marketplace through quality services, improved provider and member satisfaction: provider data integrity lapses reduce the efficacy of providers' efforts to improve overall performance, reduce error, or improve finances.

Conversely, the more providers see the overall improvement of their operational relationship with a payer, the more receptive they will be to engage with the payer to improve integrity, timeliness and contextual detail of submitted data. For instance, if physicians could immediately see how specific changes in clinical process could decrease length of stay, placing them in control of referral patterns, it makes it easier to convince them to make operational changes to information sharing.<sup>4</sup>

<sup>1</sup>[https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2016\\_Letter\\_to\\_Issuers\\_2\\_20\\_2015.pdf](https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2016_Letter_to_Issuers_2_20_2015.pdf)

<sup>2</sup><https://aishealth.com/archive/nman092916-03>

<sup>3</sup>[https://cdn-aem.optum.com/content/dam/optum3/optum/en/resources/publications/provider\\_directory\\_data\\_management.pdf](https://cdn-aem.optum.com/content/dam/optum3/optum/en/resources/publications/provider_directory_data_management.pdf)

<sup>4</sup>Source: <https://www.healthcatalyst.com/7-tips-engage-physicians>

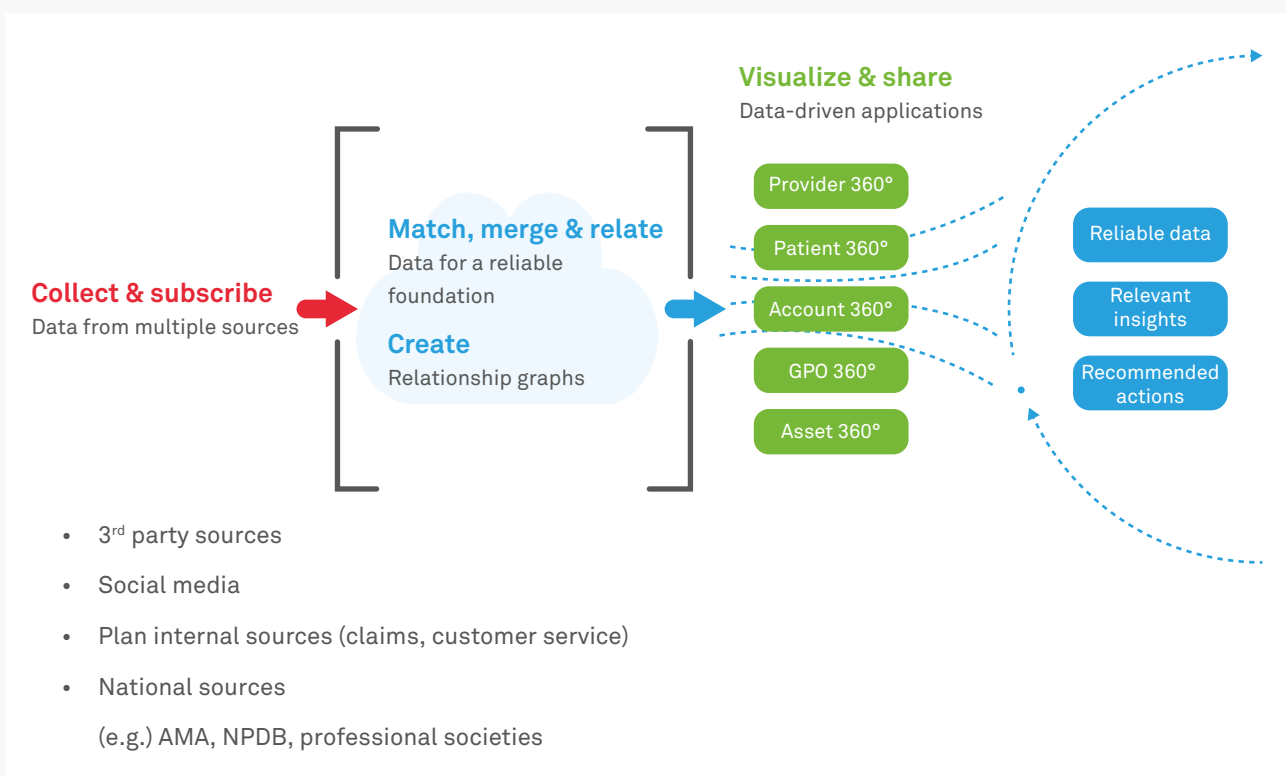
## Solution: A modern approach to provider data management

This paper endorses the adoption of a modern approach to provider data management that encapsulates best practices in process, adoption and deployment; best-in-class technology capabilities, maximum functionality and flexibility to align with ever changing business needs and priorities. While not an exhaustive view of this subject, this document highlights the following areas:

- Integration and reconciliation of various provider source data
- Management of provider Health care provider (HCP) / Health care organization (HCO) relationships and affiliations
- End-user self-service and delivering business value
- Provider data pipeline operational process improvement
- Technology
- Best practices for adoption, deployment, and sustainment

## Integration of source information

Provider data comes from multiple external sources including national databases, medical associations, different departments from within a plan, third-party commercial data providers and even directly from the provider office. Where multiple sources provide similar data elements, it is important to match, reconcile, and merge the data to create a single, reliable source of truth of provider profiles. Modern data management lets you identify potential matches, duplicates, and overlaps of the provider source data; it helps to compare and contrast similar data attributes across sources and determine which of those represents the most appropriate operational values using survivorship rules. It's critical for end-users to understand the context and pedigree of the data value and its suitability to support and enhance data-driven insight and decision-making.



## Managing relationships & affiliations

As we noted, understanding affiliations and relationships of clinicians and other healthcare professionals with other providers and provider organizations is important. Modern data management platforms leverage graph technology to help with discovering and presenting the provider's relationships with other data entities such as healthcare organizations, plans, specialties, and patients and provides the foundation with reliable data and relationships that can be used for analytics or visualized in the form of various data-driven applications.

## Quick business value with data driven applications

Once a reliable data foundation is established with continuous data quality management, it can be visualized in consumer grade applications. Business teams can confidently use data driven applications to segment providers based not only on location and specialty but any attribute available. Analytics and visualizations are built into data driven applications, delivering relevant insights that align with the objectives of the business user, reducing the "hunt and peck" required by standalone do-it-yourself business intelligence and analytical-only tools. Leveraging predictive analytics and machine learning, data-driven applications provide intelligent recommended actions guiding users to make informed decisions.

## Approach to improving provider data quality

Proper data management will continually review data for creeping loss of integrity, and provide data-driven applications that recognize the context of the inquirer to respond with the most appropriate data values. Customer satisfaction

depends on this information being accurate, available, and relevant.

Managing provider data in all its forms is a discipline in itself requiring a blend of people, process, and technology. A payer desiring to improve the quality and relevancy of its provider data should actively engage in the following steps:

- 1 **Improve data intake:**
  - a. Ensure your organization is capturing information from all input channels: master data, reference data, transaction, interaction and social data in a single unified view.
  - b. Reduce data latency and improve integrity.
- 2 **Ensure a single source of the truth and contextualization** to ensure downstream systems and applications are fed reliable and relevant data.
- 3 **Appropriate platform design** to ensure quick connectivity with other applications in the eco-system, easy onboarding of internal and third-party data, and agility, scalability, and elasticity to grow with user needs.
- 4 **Engage MDM methods and best practices** for end-to-end management and governance of the provider data lifecycle, including related reference data.
- 5 **Automate** business rules and workflow processes to manage data change requests and approvals.
- 6 **Analyze for insight** such as practice patterns, utilization, costs, outcomes, network capacity, capability, and fitness to the membership base.

## Technology

A technology platform that accurately and efficiently collects, consolidates, masters, and shares provider data from all contributing sources is critical to ensuring this process is consistently being executed, managed, and measured – at enterprise scale. A modern provider data management platform ensures that standards for data governance and stewardship are being applied uniformly and in a sustainable manner.

A best-in-class modern provider data management platform should meet the following minimum criteria:

- 1 **Cloud-based PaaS** - Offers lower total cost of ownership, quicker time to value, and operational flexibility. Supports both structured and unstructured data at any volume and scale. Blends and relates multi-domain master data, reference data, transactions, omnichannel interactions and social data into a single unified view.
- 2 **Strong master data management** - Collects, consolidates, enriches, and manages provider data from multiple internal and external sources.
- 3 **Managing relationships** - Data architecture should handle complex connections, hierarchies and relationships between multiple domains to understand affiliations among providers, plans, and HCOs.
- 4 **Data stewardship, transparency, and lineage** - Complete data lineage, granular audit trails and structured workflows with reviews and approvals for data change requests ensures required transparency and compliance.
- 5 **Collaborative curation** - Business users, data owners, and data stewards should be able to easily collaborate and contribute towards data quality. Capabilities like discussion threads and voting available within

data-driven applications allow the teams to continuously improve the data quality.

- 6 **Search** - Quick searches across all domains and across all profile attributes allow users to easily find the right profiles.
- 7 **Flexibility and scalability** - To easily incorporate new information sources, expanded data sets, or support additional use cases to provide a full 360° provider view.
- 8 **Interoperability** - With existing enterprise systems.
- 9 **Advance analytics** - To improve data quality as well as derive relevant business insights and recommend intelligent actions.
- 10 **Information security** - As evidenced by certifications like HITRUST CSF.

## Adoption, deployment and sustainment

Many traditional data management initiatives have failed to deliver the promised results. A modern approach offers the opportunity to apply best practices and key learnings to adoption, deployment, and sustainment to ensure value is achieved and enhanced over time:

- **Align investment with business value** - Avoid large up-front capital investments. Cloud-based Software-as-a-Service based approaches offer maximum flexibility to achieve results cost-effectively. Cloud-based solutions allow for innovation while avoiding internal resource and infrastructure investments and constraints.
- **Be agile** - Focus on delivered business value, deliver in small increments, get feedback, and iterate. Time to initial delivered value should be measured in weeks, not months.
- **Define, measure, and monitor throughout** - Evolve from simple to sophisticated.





- **Business participation and business/IT collaboration** is crucial. Ownership must be shared and the business must be empowered.
- **Leverage external skills** and expertise to avoid pitfalls but make self-sufficiency a goal!

A comprehensive overview of best practices is outside the scope of this paper but the authors and their respective organizations can review these with organizations considering this type of program.

A robust provider MDM program supported by a modern provider data management platform allows healthcare enterprises to reap multiple organizational benefits:

- Improved operational performance: Efficiency, effectiveness, consistency, and lower costs
- Improved provider directory accuracy
- Improved quality of care
- Enhanced business agility
- Compliance and regulation

#### Provider Master Data Management benefits

90% + accurate

Supporting the approach outlined above with a modern data management platform can drive provider directory accuracy above 90%.

## Conclusion

Proactive, strategic stewardship of provider data, supported by a capable modern data management platform can increase provider data accuracy, lead to improved provider directories, support more accurate claim payment, decrease compliance transgressions, improve member and provider satisfaction, and lay the foundation for provider engagement. A standard of excellent stewardship of provider information supports and promotes

provider engagement and collaboration on cost savings and wellness initiatives, customer satisfaction, increases compliance, and reduces operational costs.

## References

[https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2016\\_Letter\\_to\\_Issuers\\_2\\_20\\_2015.pdf](https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/2016_Letter_to_Issuers_2_20_2015.pdf)  
<http://www.fiercehealthcare.com/payer/cms-tightens-provider-directory-rules-for-2016>  
<https://www.healthcatalyst.com/7-tips-engage-physicians>  
<https://aishealth.com/archive/nman092916-03>

## About the authors

### **Rob Eichler** **Managing Consultant**

He has 30 years of healthcare experience spanning business functions, data, and applications in provider and payer settings: billing, receivables management, eligibility, claims, care management, DWH functional architecture, and analytics. He has led assignments requiring strong cross-functional capabilities in technology, operations, and health data across payers (commercial/government), Providers and Pharmacy Benefit Managers. He is a certified Life Change Artist, The Coach's Studio, Fred Mandell, instructor. Rob co-authored, "Claims and Benefits Administration," chapter of the "Managed Health Care Handbook " 3<sup>rd</sup> & 4<sup>th</sup> editions.

### **Chris Cartaino** **Reltio Healthcare Industry Lead**

He has long been a vocal advocate for strong data governance and management practices in healthcare, believing the path to healthcare transformation is through the more effective use of data. For 20+ years, Chris has worked closely with many healthcare, government, and commercial organizations to define, implement, and achieve their strategic vision through the effective use of data. His expertise spans Healthcare Master Data Management, Data Governance, HIM, and various operational and technical disciplines. He holds advanced degrees in Business Management and Marketing, is Six-Sigma certified, and is a current HIMSS member.

## About Reltio

Reltio delivers reliable data, relevant insights and recommended actions so companies can be faster. Reltio Cloud combines data-driven applications with modern data management for better planning, customer engagement and risk management. Reltio enables IT to streamline data management for a complete view across all sources and formats at scale, while sales,

marketing, and compliance teams use data-driven applications to predict, collaborate and respond to opportunities in real-time. Companies of all sizes, including leading Fortune 500 companies in healthcare and life sciences, media & entertainment, hospitality, distribution and retail rely on Reltio. For more information visit [www.reltio.com](http://www.reltio.com)

● **Wipro Limited**

Doddakannelli, Sarjapur Road,  
Bangalore-560 035,  
India

Tel: +91 (80) 2844 0011

Fax: +91 (80) 2844 0256

**wipro.com**

Wipro Limited (NYSE: WIT, BSE: 507685, NSE: WIPRO) is a leading global information technology, consulting and business process services company. We harness the power of cognitive computing, hyper-automation, robotics, cloud, analytics and emerging technologies to help our clients adapt to the digital world and make them successful. A company recognized globally for its comprehensive portfolio of services, strong commitment to sustainability and good corporate citizenship, we have a dedicated workforce of over 170,000, serving clients across six continents. Together, we discover ideas and connect the dots to build a better and a bold new future.

For more information,  
please write to us at  
**info@wipro.com**

