



Guide

# Be a Champion for Healthy Data

A how-to guide for promoting healthy data throughout your organization

# Healthcare data should be healthy

Healthy data is at the core of everything you do.

And healthcare data is fragmented, siloed, incomplete, duplicated, and non-standardized. This introduces risk or delays when depending on it to drive decisions about patient care, operations, or strategic initiatives.

In fact, **86% of nurses, physicians, and IT practitioners have witnessed or know of a medical error caused by patient misidentification<sup>1</sup>.**

And a whopping **76% of all lab data is not mapped to the standard LOINC coding<sup>2</sup>.**

So, what should you do? How can you persuade the powers that be within your organization (whether it's big or small) to take steps to improve your data's health?

## Making healthy data matter to your stakeholders

Many leaders intuitively know that poor data quality is a persistent problem. But they may not grasp the connection between poor data quality and denied claims, disengaged consumers — or potentially dangerous medical errors. And they may not realize that the challenge goes beyond patient identification.

As an integration expert, you know the value of building and optimizing integrations that support data exchange. But what about the health of the data in those systems? Your organization needs your help to ensure you know who you're talking about (identity) and what you're talking about (terminology).

That's why you're perfectly situated to help your colleagues see the value of healthier data and begin taking action. It starts by connecting the benefits of better, healthier data to your colleagues' existing initiatives and goals.

In this guide, we will frame the stakes for healthy data in three key initiatives that are nearly universal across healthcare organizations of all shapes and sizes:

1. Improving patient data quality and analytics
2. Enabling a better patient experience
3. Supporting improved financial outcomes

We'll also explain how dirty data (from patient identity or terminology) impacts those initiatives — and who to bring to the table to improve data quality in your organization.

The stakes have never been higher. Championing healthier data will pay off for consumers, clinicians, care teams, and the community. Plus, improving your organization's data health will help you do your job better — and even make your job more fulfilling.



<sup>1</sup> 2018 Mid-Year EHR Consumer Satisfaction Survey, Black Book Market Research

<sup>2</sup> athenahealth study, 2015

## 2 key components of health data management

Health data management cultivates high-quality data that helps you better understand your patients and providers, and the relationships between them.

Two components of health data management are often overlooked — yet they're relatively easy to address and can deliver transformational results:

**Identity data management** creates a 360-degree view of each person across disparate systems to ensure that all connected systems can present a complete, accurate record of the latest information, with a clear line of sight to the data's history. Identity management ensures you know **who** you're talking about.

**Terminology management** organizes, maps, and groups data so that it can be shared with semantic meaning across systems and organizations. It gives organizations full control of managing their standard, custom, and local code sets and subsets including mappings that ensure standardization for use downstream for regulatory reporting, quality measures, and FHIR-based data exchange. Terminology management ensures you know **what** you're talking about.



*“When a person comes to Geisinger, we know the person and we know all the attributes that are tied to that person. We make sure that they feel that they're heard, they get access to all of their data, and they understand where their data lies.”*

**Kim Chaundy**

AVP, Applications and Interoperability, Geisinger Health System

Better health data management can help you and your organization:



**Deliver safer patient care**



**Engage with consumers**



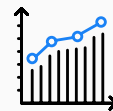
**Adapt to changing care models**



**Improve analytics and gain insights**



**Optimize data stewardship resources**



**Make smarter strategic decisions**



**Increase revenue**



**Decrease M&A time to value**

# 3 initiatives that depend on healthy data

Unhealthy data may be an unseen roadblock that's preventing your organization from achieving your high-stakes initiatives.

The success of these initiatives depends on the depth, breadth, speed, and flexibility of the underlying health data infrastructure. A healthy infrastructure will empower you to:

- Identify patients at every point of encounter (identity management)
- Make sense of data regardless of how it was expressed by a clinician or which system it came from (terminology management)

Let's explore how healthier data can help your organization make progress on three of their key initiatives.

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of nurses, physicians, and IT practitioners say they have witnessed or know of a medical error that was the result of patient misidentification<sup>1</sup>

**76%**

of lab data is not mapped to the standard LOINC coding<sup>2</sup>

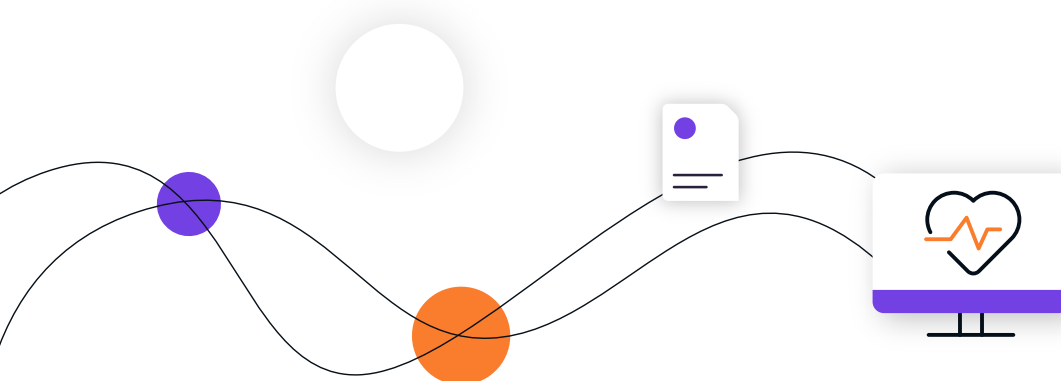
## Joe's story: A tale of poor data

Joe experienced the dangers of poor data firsthand when he presented to his local ED with a pulmonary embolism. Despite previous visits to this hospital, the registrar couldn't locate Joe's existing patient record. Instead, they created a duplicate record.

During his treatment, Joe had an allergic reaction to Lovenox, a blood thinner commonly used to treat embolisms.

Joe's records include codes for the drugs that were administered, an allergic reaction, and his diagnosis — but without strong terminology management, those codes may not be "understood" by other systems within or beyond the hospital.

He worries that if he has another embolism, hospital staff may not locate the right record or properly decode his diagnosis and allergy.



## 1. Improve patient data quality and analytics

Better data quality underpins everything you do, from the bedside to the boardroom. When you trust that identities and terminologies are well managed, you can:

- Deliver patient-centric care with more certainty
- Confidently exchange information with other systems
- Aggregate data to identify and understand trends with greater precision
- Apply artificial intelligence and machine learning to enhance analytics

Yet far too much patient data remains siloed in disparate systems, where it's incomplete, fragmented, and difficult to analyze. That makes patient matching difficult, increasing the risk of medical errors. Generating useful insights about patient and public health trends is nearly impossible.

A consistent, accurate “language” for your clinical data is also essential. Strong terminology management is a cornerstone of master data management. It ensures that your healthcare data is displayed in the appropriate terminology to be understood across organizations, systems, and practitioners - reducing misunderstandings or errors.

## 2. Enable a better patient experience

Patients are more engaged (and loyal) when their healthcare provider knows them and their preferences at least as well as their airline or bank. If they log into their patient portal, they expect to see **accurate, comprehensive information** that makes sense to them and helps them manage their health across all encounters.

Patient experience also depends on clinicians and patients having a common understanding of terminology. For example, lab data typically exists in several formats that use different coding systems. That's where terminology management comes in. By standardizing the data, it can be integrated to other systems with an understanding of how it will be displayed to the patient. The data could be interfaced via FHIR using the required terminology code set so that then a patient may be able to see a graph of their cholesterol readings over time in an app on their phone.

Standardized, comprehensive data also enables shared decision-making. When providers have immediate access to all facets of a patient's health, they can make timely, informed decisions on the best possible treatment plan.

This comprehensive, positive experience builds trust between providers and the organization's systems and between patients and their providers. However, that fragile trust can be shattered when an existing record can't be found, or when a patient must repeat a lab test because the original results weren't linked to the correct record or weren't standardized into an accepted and understood format.



### What about Joe?

*In Joe's case, better identity management would have made it easier for the registrar to find his initial record, and health data powered analytics would pinpoint the need to join his two disparate records — so that if he returns, his providers will instantly see his complete medical history, including his allergy. Strong terminology management would ensure that his allergy was coded in a way that other systems could consistently understand.*

# 50%

of consumers say that one bad digital experience with a healthcare provider ruins that entire experience<sup>3</sup>

# 28%

of patients switched providers in 2020 because of a poor digital health experience<sup>4</sup>

# 63%

of patients say they'll switch providers if their payment experience doesn't cut it<sup>5</sup>

<sup>3</sup> Accenture 2020 Digital Health Consumer Survey

<sup>4</sup> Cedar Healthcare Consumer Study

<sup>5</sup> PYMNTS The Payment Cure: How Improving Billing Experiences Impacts Patient Loyalty

## 2. Enable a better patient experience continued

Better patient engagement is at the heart of many initiatives, such as:

- Digital front doors
- Self-registration
- Telehealth
- Patient portals
- More accurate billing

Consumers have more choices than ever, and half of consumers say that one bad digital experience with a healthcare provider ruins that entire experience and may prompt them to seek care elsewhere. Billing errors stemming from miscoding can also drive patients away. As health systems continue to merge, patients expect data to be readily available, complete, and actionable across ever-larger systems.

***“Identity matching is core to our tech stack. The Rhapsody® enterprise master patient index is foundational to a longitudinal health record and the ability to link between disparate systems.”***

Jaime Bland

President and CEO, CyncHealth

## 3. Improve financial outcomes

Health systems are under tremendous pressure to improve financial outcomes while adapting to changing care models. But if they don't fully understand who their patients are (or even how many patients they truly serve), they can't make smart strategic decisions. By championing healthy data, health systems can:

- Gain visibility into their true patient population (and their needs)
- Decrease M&A time to value
- Optimize revenue by streamlining billing and other processes

When codes from multiple sources can't be synthesized, bills may be incomplete or incorrect – leading to denied claims that then require more work to collect. More than 75% of survey respondents cited denied claims as their biggest revenue cycle management challenge, with disparate codes and systems as a major factor. Terminology management can reconcile these codes so that billing is more accurate, the first time.

A full one-third of all denied claims were a result of poor patient matching, costing the average hospital \$1.5 million every single year.

Dissatisfied patients who take their business elsewhere are the ultimate hit to the bottom line.



### What about Joe?

After his experience, Joe logged into his patient portal. He could not see any notation about his allergy, and has no idea whether it was captured in a way that other systems can understand. Now he worries about what might happen if he is brought back to the same hospital, unconscious or unable to advocate for himself. Overall, Joe no longer trusts his local health system. He's shared his story with friends and neighbors and asked them if they can recommend another provider in the area.

**1/3 of all denied claims were the result of poor patient matching, costing the average hospital \$1.5 million per year – and \$2 billion across the entire healthcare system<sup>6</sup>**

**Duplicate records cost healthcare organizations \$1,950 per inpatient stay in redundant tests and procedures<sup>7</sup>**



### What about Joe?

After Joe's experience, he may not return to the health system – taking his healthcare dollars to a provider that understands him better. If the billing department sends an invoice to his previous address, they may struggle to collect. And since the health system has two disparate records for Joe, they cannot accurately assess how many patients they have and truly understand the impact of a potential merger with the health system across town.

<sup>6</sup> HIMSS Analytics

<sup>7</sup> 2016 National Patient Misidentification Report, Ponemon Institute

# How to be a champion for healthy data

## 1. Start the conversation

Start by having conversations with colleagues (and their bosses) throughout your organization. Talk to anyone who touches the data – and who may be struggling with the effects of fragmented, siloed data. Strive to find out where their pain points lie.

Ask about their initiatives and goals. Here are some starter questions to uncover potential identity and terminology data challenges:

- What is your strategy for sharing standardized information as required by FHIR and the 21st Century Cures Act?
- What challenges are you facing applying analytics/AI/ML to data sets?
- What is your process for reconciling non-standard codes?
- How are you resolving potential duplicate identity data?
- How are you ensuring the accuracy of patient data being exchanged across disparate clinical and business systems?
- How are you curating data to support digital engagement with patients?
- How are you addressing denied claims?

## 2. Connect the dots between teams

It's not just data that's stuck in silos: your teams can be, too. You may discover that multiple teams are frustrated by the same challenges.

**For example**, a Business Transformation office struggling with analytics may be working with the same source data that's hampering Billing's efforts to improve claims approval.

As you listen, help connect the dots between teams and departments. Bring them together to:

- Understand the full extent of the problem
- Align common goals and needs
- Ensure everyone is on board

Together, you can begin charting a path toward healthier data that will benefit the entire organization (and make your job easier, too).

**"Our client registry has about five source systems that feed it. How do we get the duplicates out of the system? We have to consider data quality. Where I help is through RFPs. Instead of having one department to purchase one application that suits one specific need, I encourage them to think about how that information will interface with other systems. In the RFP process, I say 'here are our must haves: It has to use HL7, it has to accommodate FHIR, and so on.'"**

**Mark Ralph**

Manager, technology and HIE, Nova Scotia Health Authority

## 3. Bring in the experts

You don't have to go it alone. Rhapsody® is here to help you drive these conversations. We can help you:

- Educate your team on best practices for healthy data
- Invite the right people to the conversation
- Create a business case that will resonate with your stakeholders
- Prepare for (and influence) changes on the healthcare horizon

### Not a healthcare provider?

We can help. If you're a healthcare technology solution working with providers, you likely face some of these same challenges keeping your data healthy. We work with organizations like yours to craft health data management strategies that improve data quality, accelerate time to value, and help your customers optimize their outcomes – so you can optimize yours.



# How the Rhapsody Interoperability Suite helps you be the data champion your organization needs

Rhapsody partners with healthcare organizations around the globe delivering a flexible interoperability suite that reliably connects people and the quality data they need.

With our long history of solving integration challenges in healthcare through our integration engines, you can seamlessly move data among different systems.

With **Rhapsody Identity** solutions, your organization can confidently identify who you're talking about – which patients and providers are related to the data you're exchanging.

And with **Rhapsody Semantic** – a combined terminology management solution, authoring tool, and FHIR terminology service – healthcare organizations can synthesize health records from more than one system and to analyze data.

## How to choose a partner for healthy data

As you consider partners who can help you build your interoperability infrastructure, look for one who:

- Supports any data standard
- Deploys where you want to – in the cloud, on-prem, or a hybrid of the two
- Right-sizes the services and support you receive
- Meets your requirements, whether you want to develop operational skills to maintain integrations in-house or outsource them
- Helps connect caregivers to the data that they need when they need it, improving patient outcomes and optimizing operations
- Increases confidence in insights by ensuring analytics are fed by the most complete and accurate data
- Navigates you away from pitfalls, and never leaves you exposed

## Ready to start championing healthy data throughout your organization, but not sure how to start?

**Let's talk.** Find out how the Rhapsody Interoperability Suite supports you and your healthy data goals.

