

DERIVING VALUE From Payer Health Data

Acting on opportunities while setting realistic
timeline expectations and resource commitments

»» DRIVING FORCES

Healthcare's continued transformation is driving further focus on utilizing a patient-centric approach. This approach requires a complete understanding of patient behaviors, needs, preferences, and outcomes. Payer health data is invaluable to unlocking essential insights into these patient aspects.

THE CHALLENGE

Acquiring necessary data can be a hurdle to answering important health related questions about the populations you serve. Are realistic expectations being set for sourcing and assembling the right data?

OUR CLIENTS

We assist varying types of health care companies with their patient-centric approach by unlocking critical aspects of patient insights.

-  Utilization Management
-  Health Plans
-  Benefits Management

CLIENT SCENARIOS

Our clients aspire to leverage payer health data to benefit their patient and provider constituents in several ways:

-  Patient Outcomes
-  Value-based Care
-  Product Development
-  Strategic Planning
-  Staffing and Operations
-  Fraud Prevention

IMPACTS

As you prepare initiatives using health payer data, several practical realities can stretch resources and timeframes beyond the initial plan. Having an awareness of the possible pitfalls will assist with setting more realistic expectations and may make a compelling case for seeking consultative services from experts with a solid track record in navigating these pitfalls.

BEFORE DATA ARRIVES

Several steps are commonly required leading up to receiving data. However, these steps can often become hurdles, so timeframes can vary with every situation.

1 to 6 weeks

Defining Data Required

Translating analysis questions into discrete data elements needed

1 to 4 weeks

Identifying Sources

Determining specifically where the data resides within the organization

2 to 12 weeks

Data Expert Assistance

Assembling the right subject matter experts to lend assistance in retrieving the required data

4 to 16 weeks

Legal and Regulatory

Ensuring all compliance, regulatory and legal aspects have been reviewed and approved

2 to 4 weeks

Preparing Data Files

Working with technical resources to accurately extract the data into an effective format

1 to 2 weeks

Transmitting Data Files

Proficiently and securely transferring data files to the intended target location

Defining Data Required

Effort is required to interpret and map analytic questions and project goals into discrete data elements. The effort should be as efficient as possible by leveraging the knowledge of individuals and teams that have the right level of intimacy with the data throughout the organization.

Identifying Sources

Once data elements are defined, figuring out more specifically where the data resides and how accessible it is can be trickier than it may seem, as data often resides in different parts of the organization or even duplicative locations where accuracy of the source comes into question.

Expert Assistance

Whether from subject matter experts or technical sources, focusing expert assistance within desired timeframes may be difficult, as they are often resources that have competing priorities and organizational initiatives tugging at their limited time.



Legal and Regulatory

Most projects involve data elements that are considered protected and raise privacy concerns within groups charged within the organization to regulate and monitor the use and disclosure within and outside of the organization. These groups require a full understanding of how the data will be shared and used, therefore this step is often iterative to ensure comprehension before approval can be given for the project to proceed.

Preparing Data Files

Since data elements originate in varying sources within the organization, preparing a cohesive set of data elements that integrate accurately can be quite difficult. Incorrectly extracting and aggregating the data often results in the need to redefine and repeat the extraction of data from some or most of the data sources.

Transmitting Data Files

Data sets prepared from different areas within the organization are often large and collected in multiple files. The data must be transmitted to partner services with accuracy, ensuring the complete set of data arrives or is not inadvertently duplicated. This is especially true if errors occur, and corrective actions are needed during any part of the delivery process.

Following are five real-world examples of past challenges that disrupted timeframes and resource expectations you should take into account when planning your next project.



1 FRAGMENTED DATA



Health payer data typically comes from multiple sources with differing formats, making the extraction and integration of data a real challenge. There is often divergence and duplication of data with no single source of truth. Without caution and diligence, this complexity greatly increases the risk that project outcomes will not be accurate and reliable.

Research and time should be allocated to determine the true origin of data with its originally intended definition. If data resides in other sources, caution and due diligence should be taken to ensure alignment of definition with the current project's expectations exists.

If an original source of truth is not directly utilized, transparency of the risk should be documented so all involved in the project will have tempered expectations of those risks present in the project outcomes. This also presents a risk of ultimately needing to shift to another source of data if it is later determined a misalignment of data element definitions as they relate project expectations.

As an example, initiatives involving the use of health payer data often call for the ability to perform patient record matching. Errors, duplicate records, and aggregations must be identified and rectified to an acceptable level, particularly when data is coming from different sources and combined with external information.

These complex aspects often take specialized skills and experience in addition to the fundamental understanding about where the information's origins. Lack of attention to this can result in inaccurate and incomplete health care member profiles impeding reliable insight into a patient's ever-evolving relationship with the health care system.

CASE EXAMPLE



AGGREGATING CLAIMS DATA FROM DIFFERENT HEALTH PLANS

A specialty network was interested in identifying factors associated with the best patient outcomes and product reports for participating physicians illustrating how their performance compares to peers accordingly.

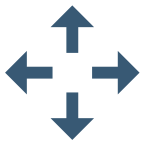
There were several different health plans (payers) contracted for the company's services, asked to provide claim and pharmacy data in a specified format.

Some of the health plans were able to comply within a timely fashion, while others had difficulty pulling their claims data in the desired format and at the required level of detail due to a multitude of systems within their organizations that aggregated and transformed data elements in different ways.

A lack of understanding which systems contained which data elements with the desired definition hindered delivery of the information needed by the project. Several iterations of review meetings, validation efforts, and switching data sources occurred. Further, once the datasets were received, it became clear that the data in some of the required fields were non-standard.

This all entailed a considerable amount of back and forth with the health plans and ultimately resulted in project deadlines being pushed out several times.

2 EVER-CHANGING INFORMATION



Patients and physicians, like the rest of us, move, change their names and professional affiliations. Organizations may also add new locations or go through various mergers and acquisitions. Moreover, the introduction of alternative treatments, new drugs, and personalized care models change the service delivery and data captured, making it difficult to keep health care data clean, complete, consistent, and current.

Understanding the volatility of health payer data, and/or how often and to what degree it changes, can be burdensome for organizations that do not consistently monitor their data assets overtime or the viability of that information for analysis and related purposes.

One of the considerations to keep in mind is that a data analyst or programmer that has expertise in writing the sequels to pull the data together, often does not have knowledge or understanding regarding the meaning of the underlying data, nor the caveats associated with it in terms of how the data is planned to be used. This is another case when finding and coordinating between and among different subject matter experts (both within and outside the organization) becomes essential and needs to be built into the project plan upfront. This can account for a project timeline that is longer than you might imagine.

Having a way to detect and evaluate data consistency and adjusting accordingly is critical. In addition, making clear determinations when embarking on a project using health payer data about the need to link patient records from various sources over time, as part of multiple data pulls versus a one-time event, may take additional time up front to organize and format but will save considerable time and effort later on, which is well worth the investment and planning at the outset.

CASE EXAMPLE



LINKING PATIENT AND PROVIDER RECORDS OVER TIME

A health care delivery system was seeking assistance in leveraging payer data creating financial parameters to assist in negotiations with health plans for risk adjusted and risk sharing contractual arrangements.

Information was received from multiple payer organizations, with 3-year history to establish baseline and year over year trends for an “assigned” population. It quickly proved challenging to (1) get the information for specific patient (member) cohorts in consistent formats, and to (2) link patient records across different years – members were not always insured by same payer overtime and/or enrolled in same insurance plan (risk pool) for that duration. They may or may not have always listed a primary provider (or same provider) and that association in some cases needed to be inferred from other available utilization data.

To support ongoing reporting needs, that same reformatting and adjustments to the data needed to take place each time new data was pulled.

3 COMPLIANCE AND SECURITY



As patient privacy and compliance are always of paramount concern, health care organizations need comprehensive auditing and tracking features to guarantee compliance with HIPPA and other patient privacy and security requirements and regulations. When assembling and sharing health payer data for purposes other than direct operations or patient care, data lineage and a historical trail for any data matched, merged, or updated help with traceability and provide essential safeguards, avoiding potential suspected breach or privacy violation.

With ever-changing regulatory requirements, keeping sourced data sets compliant is an arduous task. Poor data quality and lack of sound and documented processes around protecting patient privacy when sharing data prevent organizations from meeting new regulatory needs and result in excessive cost associated with audits and reporting. This can be an uphill battle that few organizations have the expertise and bandwidth to accommodate, particularly when data is being accessed and shared beyond its immediate purpose.

The good news is that with the proper data protection protocols in place up front, health payers and providers can share sensitive patient data securely, both within and across the organization, and adhere to strict monitoring and reporting regulations.

Being aware of requirements across the various stakeholders and making appropriate accommodations accordingly once again can take time and effort up front, but will smooth the path forward, and garner necessary “buy in” from critical stakeholders, as the project proceeds. A critical step here is to involve organization’s security, regulatory and legal teams very early in the data discovery process.

These (legal and regulatory) reviews will most always be quite involved with the need for a lot of documentation, and a series of steps for garnering approvals. Further, legal teams from both the sending and receiving organizations are likely to have their own set(s) of requirements and protocols, which adds to the complexity of getting the right documentation and approvals in place

While de-identified datasets can more easily be leveraged for purposes like quality and outcomes measurement or overall performance benchmarking, there are many applications of the data that will at some stage need to be identified. This also requires having the right processes and documentation in place to ensure only those who need personal identifiers for the purpose(s) specified are granted such access, and there is a way to validate necessary procedures are being followed.

CASE EXAMPLE



PROTECTING PRIVACY WHILE USING DATA TO IDENTIFY INDIVIDUAL RISK FOR PROACTIVE OUTREACH

A specialized services health care company was interested in created an algorithm using combination of health plan claim and consumer data – to identify an at-risk population for their outreach and engagement programs.

A couple of situations came up related to privacy protections that stretched out the timeframe for acquiring the payer data. First, the payer organizations needed to get permission from their clients (employers) to use their member claim data for research and analysis purposes (this was not a provision in the employer contracts and needed to be separately obtained).

Second, even though data to be sent was de-identified (stripped of personal identifiers), it was necessary to share that encryption “key” in support of linking of claim data with consumer data purchased externally.

Last, client’s privacy officers required a detailed mapping out of who would have access to the data (and for what purpose) – in addition to documented safeguards to enforce only those that required personal identification of data would have access to it – and only for purposes stated and approved.

4 TRANSPORT AND STORAGE



The format and sheer volume of health payer data requested can create unexpected bottlenecks both in terms of securing adequate storage outside of health plan's legacy operating systems (where the data is sourced) in preparation for sending, as well as where the resulting dataset is being sent.

This is in addition to all the specialized manipulation of the data elements needed to comply with security and privacy concerns and to present the data in a manner that is formatted according to specifications. Then there is the need for both health plan and recipient of the data to have access to IT resources and utilities appropriate for the actual transport of the data itself.

Often, it is far more efficient to work with an outside consultancy who has experience in setting up data transport and storage capabilities and expertise in leveraging utilities like cloud-based services to facilitate moving and setting up stored data for analysis and sharing.

CASE EXAMPLE



ASSESSING RESOURCES AND CAPABILITIES FOR TRANSPORT AND DATA STORAGE

A start-up disease management company was looking for analytics and help setting up reporting as part of their contractual obligations to their clients – to demonstrate value of services provided for specific populations. The company had access to payer data in support of operating their programs but had no processes or tools in place for extracting that data, aggregating it or sending it to a third party.

The company contracted with DataWELL to assist with logistics and establish a primed data platform, supported by cloud-based services – as a cost effective alternative capable of fully accommodating their analytics and ongoing reporting needs. While it took extra time to get this all set up, it minimized impact on our client's limited resources and need to otherwise detract from efforts to build and grow their new business.

5 DATA EXPERTISE



Health payer datasets to be utilized in support of some aspect of ongoing operations (in addition to research and analytic purposes) require careful attention to making sure organization has the right level of experts – not just in the data itself, but what it means. Without that understanding, it is very challenging to ensure that the right information is being provided, and that it can be interpreted correctly.

Understanding when the data was created and by whom for what purpose – as well as who has/will have access to the data before, during and after the duration of the “project” is also critical to ensure both its validity and ongoing integrity. It is not uncommon that in addition to working through “how” to pull the data, there is not always a single subject matter expert that will know where all the data resides, what the best source of that data is, and how reliable it is. Locating the individuals within an organization who are most knowledgeable about specific data and establishing the right governance and processes to organize and otherwise facilitate working sessions to create a plan to access, aggregate and validate information coming from a variety of areas is certainly not without its challenges. This can be an unexpected “bump in the road” adding considerable time and effort to the project, even prior to getting access to the data itself.

Developing complete, accurate, and up-to-date metadata is a key component of a successful data governance plan. Metadata allows analysts to exactly replicate previous queries, which is vital for scientific studies and accurate benchmarking, but of equal importance when its output is used in ongoing operations in some fashion.

This will also prevent the de facto creation of isolated datasets that are expensive to maintain but limited in their usefulness.



CASE EXAMPLE



BUILDING INTERNAL DATA CONSISTENCY FOR PATIENT PROFILES

A regional health plan wanted to compile information received from its network providers to complement their claim data – for purposes of created a more robust set of member profiles illustrating how patterns of utilization are associated with patient satisfaction and outcomes.

This effort, working with various datasets necessarily coming from different locations, and primarily used for different purposes, quickly became messy and difficult to untangle.

After much time consuming and costly (resource intensive) effort, client also found that once a relatively “clean” patient profile dataset was created, it became equally difficult to maintain over time.

Client contracted with the WELL for expert assistance. We worked with the health plan to set up a successful data stewardship and governance plan in support of initiatives leveraging resulting patient profiles. We also helped them assign a data steward to be responsible for the development and curation of “metadata”. Data steward responsibilities included making sure all patient profile data elements have standard definitions and formats, are documented upfront, and remain useful for a variety of purposes.