CHALLENGES USING MACHINE-READABLE FILES MANDATED BY TRANSPARENCY RULE:
A BLUE CROSS AND BLUE SHIELD OF LOUISIANA CASE STUDY

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BACKGROUND AND OBJECTIVE

Americans have long been in the dark about the cost of their healthcare until they received a bill. Congress offered a solution in 2020, when it passed the Consolidated Appropriations Act, and the U.S. government released the Transparency in Coverage rule. Among the consumer protections, it ensured access to prices for health services to help people make informed decisions.

The federal rule mandates that healthcare pricing information be transparent to consumers and other stakeholders. It requires health plans to publish machine-readable files (MRFs) and disclose their negotiated rates, in- and out-of-network allowed amounts, and prescription coverage rates to participants, beneficiaries, and enrollees. Although it deferred publication of the prescription files, the U.S. mandated payors publish the other two sets of files by July 1, 2022. This caused myriad compliance challenges for groups and plans.

Blue Cross and Blue Shield of Louisiana (BCBSLA) processed and analyzed MRF data via a large collaborative effort across departments. It encountered multiple challenges: large file sizes; data quality issues such as redundant, incomplete, or incorrect data; varied reimbursement policies such as modifier pricing rules, multiple procedure reductions, clinical editing, and anesthesia base/time units. This made it difficult to ingest the data and compare prices across payors.

Despite the challenges, BCBSLA developed an effective Extract, Load, and Transform process for data ingestion. BCBSLA conducted thorough research on payor-specific reimbursement policies pertinent to the targeted comparison. It focused on areas where data quality was higher and sufficient for analysis, and it developed a tailored approach to analyze and compare the data across payors. It is important to note that due to the complications and limitations of the MRFs, these approaches were not flawless; they are a milestone and an attempt to obtain some results. To further enhance the efficiency of ingestion, BCBSLA partnered with external vendors to set up a process that allows it to receive the MRF data in a much more timely manner.
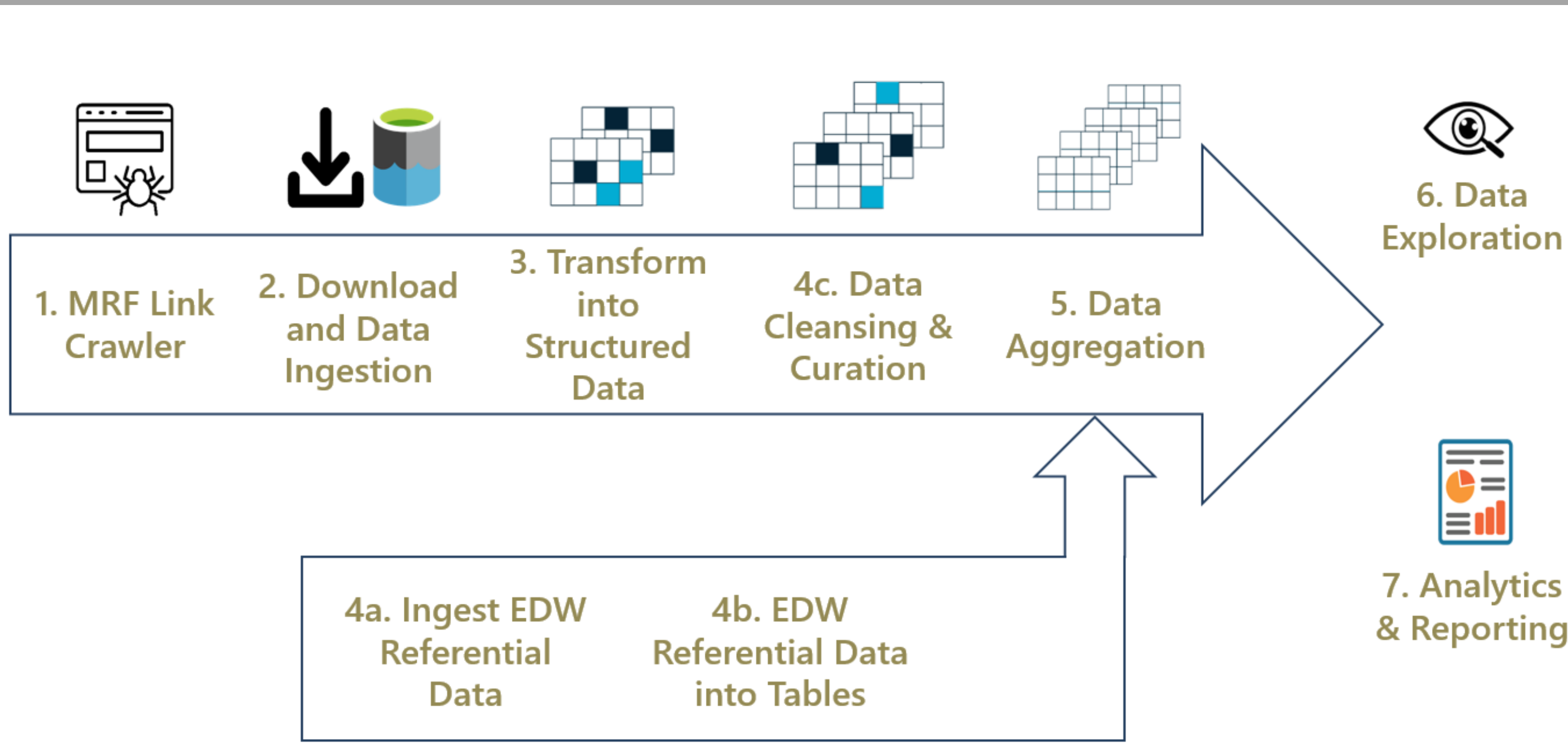
METHODS

- Machine-readable files from different payors were downloaded from their respective payor's website.
- BCBSLA employed an Extract, Load, and Transform process, along with a cloud-based platform, to inject large-sized MRF data from various payors into our platforms.
- To process the data more efficiently, BCBSLA collaborated with external vendors to create a process allowing it to receive the MRF data in a timelier manner.

Louisiana

METHODS (Continued)

- To effectively analyze the data and compare data across payors, a thorough understanding of the various reimbursement policies was needed. Then a method for correctly comparing the same service across payors was used.
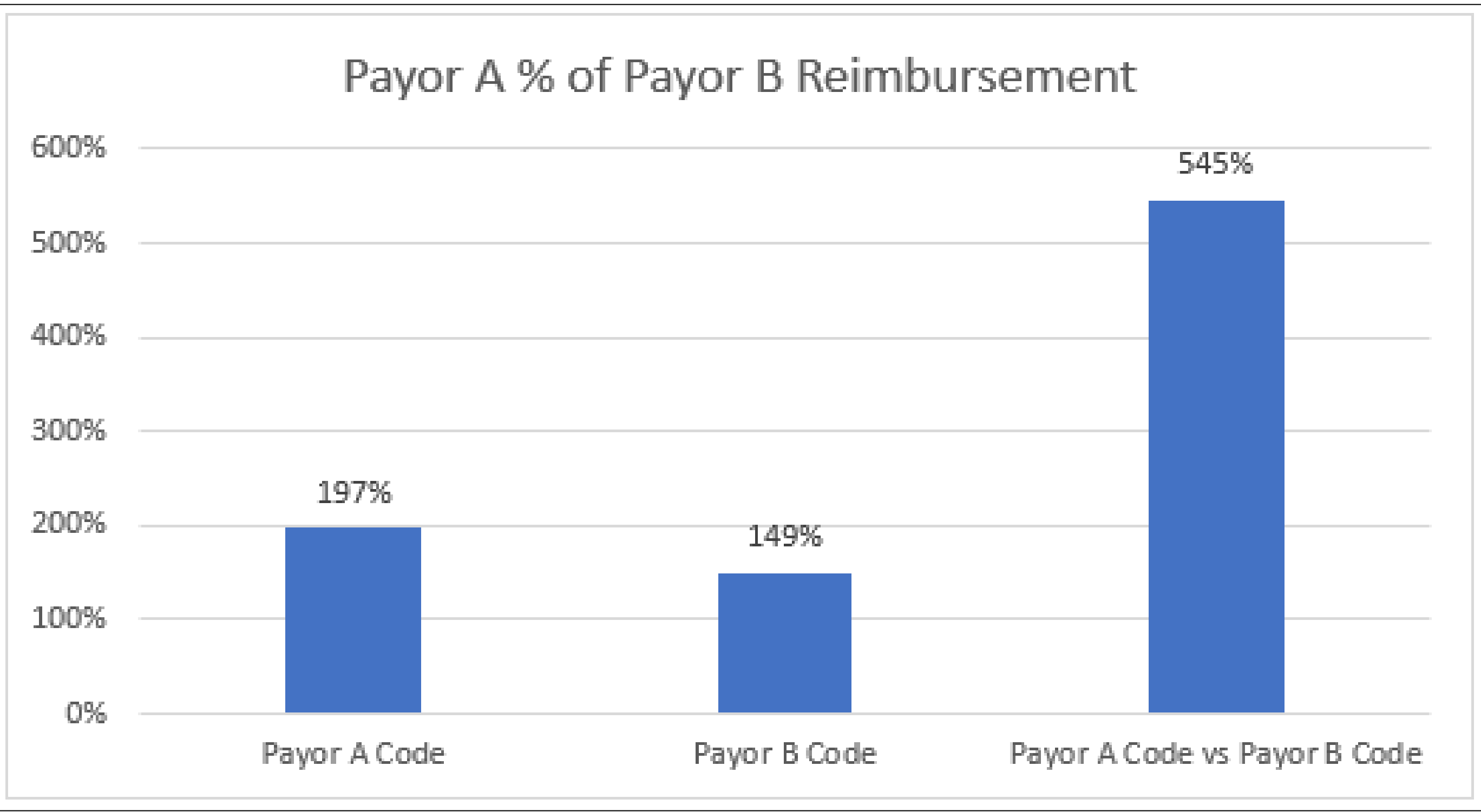
Figure 1. Data Process for Machine-Readable Files

1. MRF Link Crawler
2. Download and Data Ingestion
3. Transform into Structured Data
4c. Data Cleansing & Curation
5. Data Aggregation
6. Data Exploration
4a. Ingest EDW Referential Data
4b. EDW Referential Data into Tables
7. Analytics & Reporting

Abbreviation: Enterprise Data Warehouse (EDW)

RESULTS

Figure 2. Correctly Comparing Same Service Between Payor A and Payor B

Payor A % of Payor B Reimbursement

Payor A Code: 197%
Payor B Code: 149%
Payor A Code vs Payor B Code: 545%

In addition to data ingestion and data quality issues, navigating the diverse reimbursement policies across different payors presented a significant hurdle for conducting direct rate comparisons. In some instances, payors use different codes to bill for the same service. This means comparing the same code across payors may not yield an accurate rate comparison. In Figure 2, two payors employed distinct codes for the same service. When comparing code from Payor A, the rate of Payor A was 197% of Payor B. Employing Payor B's code reveals Payor A is 149% of Payor B's rate. The most accurate comparison was to align the Payor A code directly with Payor B code, highlighting that Payor A's rate was 545% of Payor B.
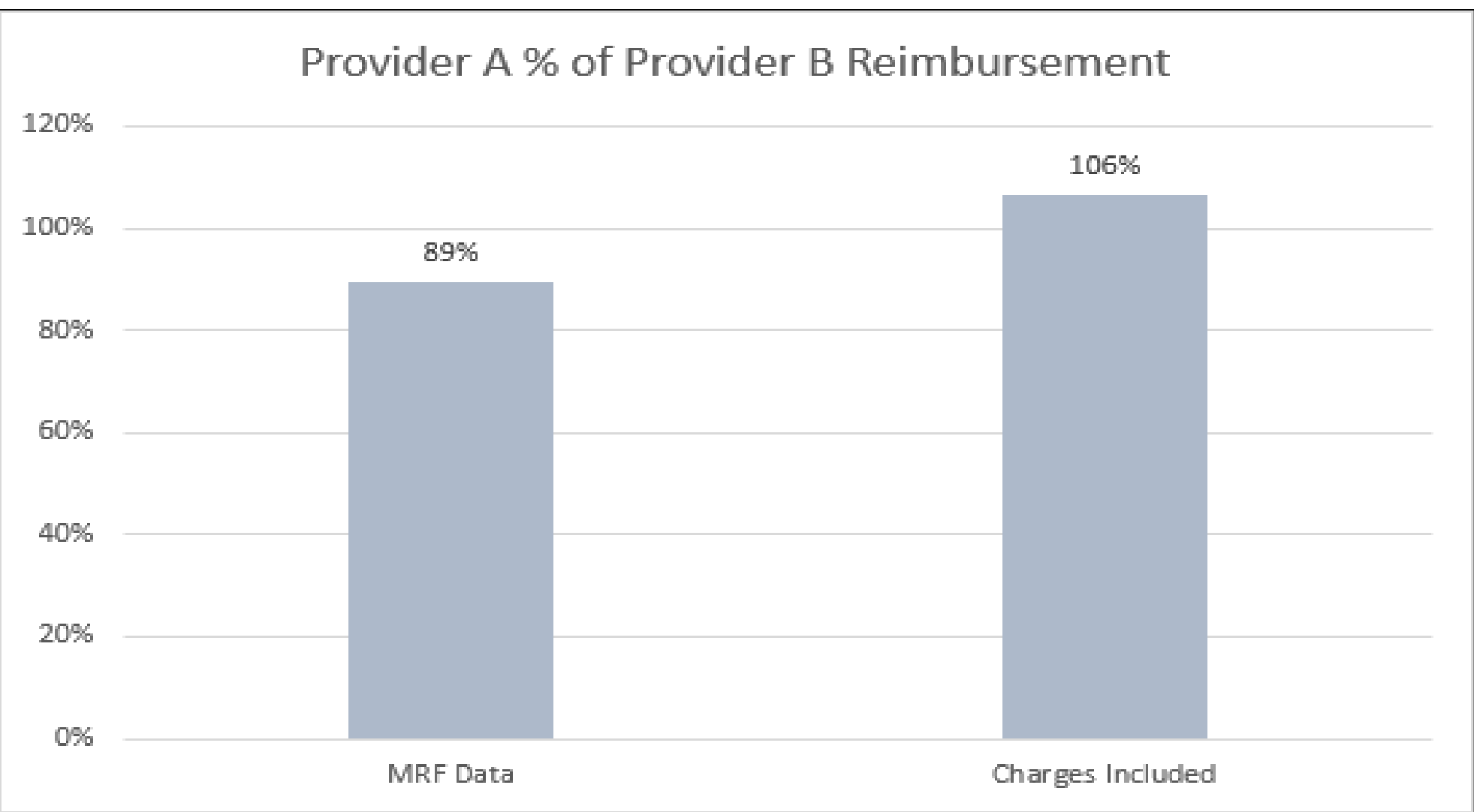
Figure 3. Claim-Level Reimbursement Comparison

Payor A% of Payor B Reimbursement

Surgery: Same MPR 108%, Payor Specific MPR 134%
E&M: Same MPR 98%, Payor Specific MPR 98%
Total: Same MPR 108%, Payor Specific MPR 131%
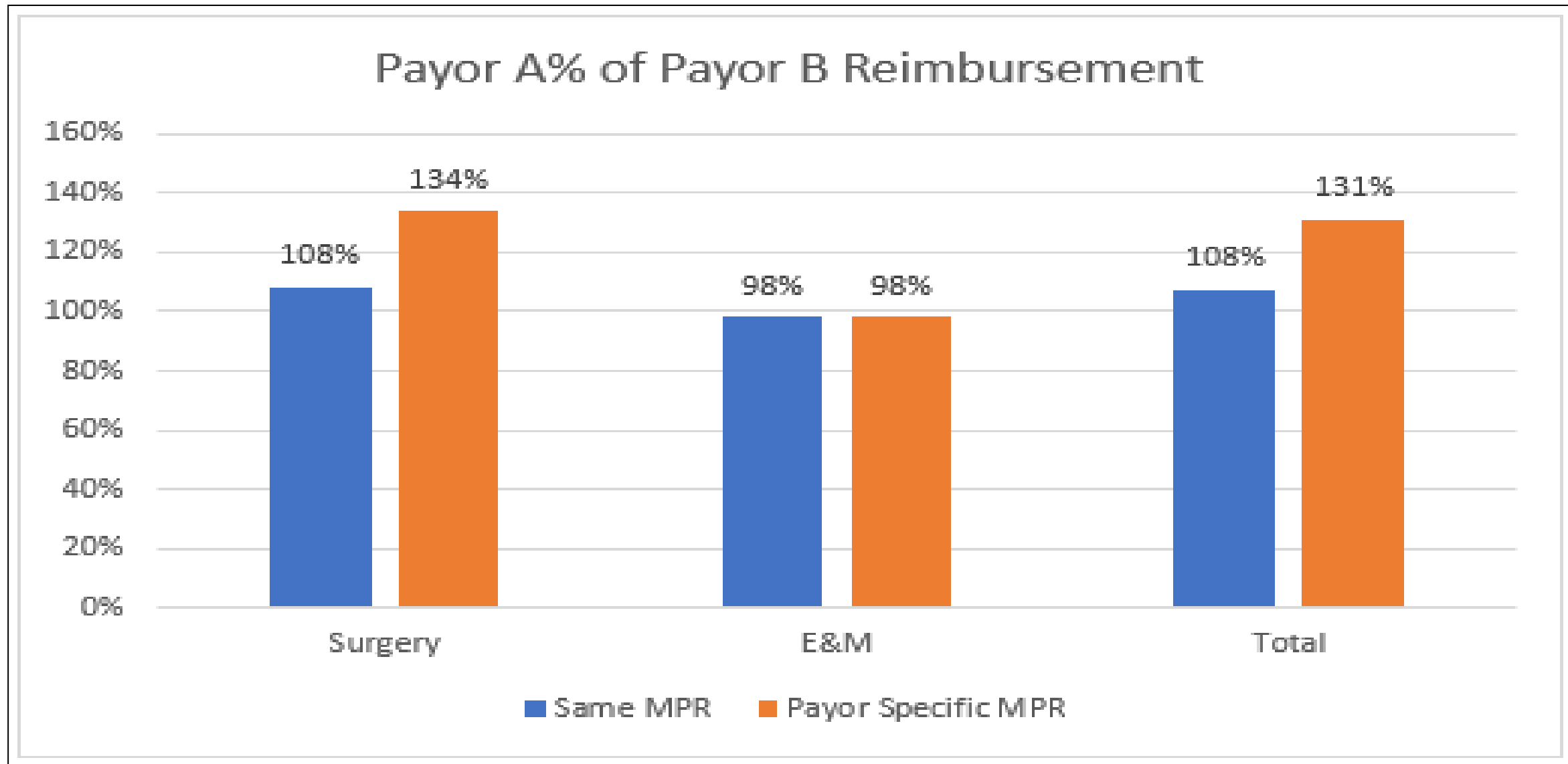
Multiple Procedure Reductions (MPRs) are percentage reductions in reimbursement when multiple services are billed on the same claim. MPRs are generally used at the claim level. MPRs must be applied by considering multiple codes or units billed on one date of service for the same patient. Differences in payor MPR policies can exert a notable influence on rate comparisons. As shown in Figure 3, Payor A and Payor B used different MPR policies. Directly comparing rates using uniform MPR, Payor A is 108%, 98%, and 108% of Payor B in Surgery, Evaluation and Management (E&M), and total rates, respectively. However, when employing payor-specific MPRs, Payor A's rates elevate to 134%, 98%, and 131% of Payor B across the same categories.

Figure 4. Charges Impact Reimbursement

Provider A % of Provider B Reimbursement

MRF Data: 89%
Charges Included: 106%

MRF schema is limited to negotiated rates, but inpatient hospital reimbursement requires provider-submitted charges as well as stop-loss and other payment provisions in contracts to accurately reflect reality. Figure 4 further illuminates the disparity between a rate comparison and how claims are reimbursed. Provider A's rate was 89% of Provider B's rate for the same MS-DRG (Medicare Severity Diagnosis Related Groups) in the same file for the same payor. Incorporating claims data and supplemental contractual reimbursement terms, Provider A's per-claim allowance showed 106% of Provider B. Inferring the reimbursement from the rates for one payor's MRF is not accurate. Extrapolating across payors exacerbates this issue dramatically.

CONCLUSIONS

The federal transparency rule's intent was to empower consumers in navigating the inherently complex healthcare system. With the sophistication that comes as a health plan, BCBSLA found it very challenging to interpret information within and across MRFs. Several factors are recognized that would create further challenges for consumers to easily access, understand and act upon the data. Working with external vendors, BCBSLA overcame many obstacles, including large file sizes and quantity/duplicative data. However, challenges remained related to elements such as missing codes, multiple rates, payor-specific reimbursement policies, and schema limiting contracted rate information. By focusing on areas with sufficient data for analysis and accounting for payor-specific reimbursement policies, BCBSLA developed meaningful insight from the payor MRFs.