

## Clinical Drug Information

# *Medi-Span<sup>®</sup> drug data helps policy researchers analyze claims to balance quality care with sustainable costs*



### **CASE STUDY: ALL-PAYER CLAIMS DATABASE**

Population health seeks to measure patient outcomes, usage and behavior patterns, and develop policies and procedures that help improve the overall health and well-being of the segment of the population in question based on those data.

*The Medi-Span data set helps the research team align content within the database and standardize it for more efficient and effective analysis.*

But how do you make a meaningful impact when you're facing the daunting prospect of analyzing thousands upon thousands of data entries, including patient profile basics, medical conditions, treatment interventions, prescriptions, and other possible social or environmental sorting factors? For researchers seeking to help guide health policy by developing a state-wide All-Payer Claims Database, Medi-Span is

the preferred drug data solution because it gives researchers the flexibility to group and efficiently and effectively analyze vast amounts of pharmacy claims data to suit the unique needs of their projects.

### **BACKGROUND**

In 2008, a Midwestern state government authorized creation of an All-Payer Claims Database (APCD) to serve as a repository of data from pharmacy, insurance, pharmacy benefit managers (PBMs), and providers across the state. All providers and benefits businesses are required to submit pharmacy and medical claims data (scrubbed of HIPAA-protected information) to the APCD. The only claims that are exempt are cash-pay transactions and Veterans Affairs (VA) and Indian Health Service (IHS) claims.

"Creating a database like this is sensitive and expensive," says the lead researcher from the outside team chosen to lead the data analysis for the state. Even with personal patient information and identifiers removed from the claims, there is a great deal of concern about privacy. Therefore, access to the data is only limited to a small number of state employees.

The primary goal, the lead researcher explains, is to aggregate the state's data in such a way that he and other analysts can uncover and track big picture trends and present them to lawmakers and healthcare policymakers to inform decision making. "We need to use this information to be wiser to avoid getting to a tipping point," he says. "We can't sustain a healthcare system that's any care at any cost."

## THE CHALLENGES

The APCD has two primary categories of stored data: medical claims data and pharmacy claims data. The pharmacy claims category takes all prescriptions in the state from the last five years and divides them into brands, generics, specialty brands, and specialty generics, with intent to examine price and usage trends over time. Independent researchers publish reports on each sub-group to help inform policymakers, legislators, large employers, and other stakeholders in the state, the lead researcher explains.

His work with the APCD requires him to sift through a large raw data dump and turn it into a cogent analysis of broad spending and usage trends, including:

- How many claims are processed
- How much the state spends on medications
- Changes in total drug spend over time
- How much of the changes in drug spend are due to price or due to usage
- How many residents of the state are “touched by these drugs”

The researcher also looks at more intricate deltas, including, for example, whether generic drug usage goes up or down over a time period and the rates at which brand usage increases, or if the introduction of a new OTC medication creates new user volume overall or if it reduces usage of branded prescription products.

“These are fairly simple concepts, but they have complex implications,” the researcher says. “Once we know the trends, we can identify problem areas and develop policy recommendations around the data. Then we

can use the database to track the policy and its implementation and impact on the state.”

But a “data dump with no structure” provides no meaningful information. In order to find trends within the massive amounts of data the state’s insurance companies and PBMs are providing, researchers needed a meaningful, flexible classification system for drug information that “would allow natural groupings that are relevant,” the lead researcher explains.

## THE SOLUTION

With more than a decade’s experience using Medi-Span drug data in his work, the researcher said it was the obvious choice to integrate with the APCD for data classification and analysis.

The researcher praises the “excellent” grouping variables made possible by the Medi-Span proprietary Generic Product Identifier, or GPI. He notes that the 14-character GPI allows grouping by broad categories (e.g., cardiac drugs) down to specific dosage form, allowing flexibility in how the team parses and analyzes claims data.

“I prefer the GPI,” he says. “It is a scheme that would cover any drug on the market or that could come onto the market. It covers every NDC, and no NDC could fit in more than one place. It’s both exhaustive and mutually exclusive.”

When claims data comes in to the APCD, it includes NDC, product name, generic name, and other attributes about the drug in various coded formats, depending on its source. The Medi-Span data set links an NDC to each prescription and uses standard proprietary descriptors to standardize information, regardless of its source coding. This helps the research team align content within the database and standardize it for analysis.

*“Medi-Span has greatly enhanced the value of the data. If we put all this information in one place ... it can be very powerful.”*

Lead researcher,  
statewide All-Payer Claims Database

At the GPI’s most specific level – what the researcher calls the “GPI 14” – he engages all 14 characters and values in the identifier when sorting drug data. It is a “critical grouping level,” as it shows those drugs that are exact AB matches in the FDA Orange Book and are thus able to be substituted for each other by pharmacists without consulting physicians or other prescribers.

Medi-Span data also provides useful fields for grouping claims data, such as usual dose and usual duration, which helps the researcher analyze key trends.

“Medi-Span has greatly enhanced the value of the data,” he says. “If we put all this information in one place so we can look at it and drive decisions, it can be very powerful.”

*“I prefer the Medi-Span GPI (Generic Product Identifier). It’s both exhaustive and mutually exclusive.”*

Lead researcher, statewide All-Payer Claims Database

**Example: GPI for Lipitor Oral Tablet 10 MG**

Drug Group	39	ANTIHYPERLIPIDEMICS
Drug Class	39-40	HMG CoA Reductase Inhibitors
Drug Subclass	39-40-00	HMG CoA Reductase Inhibitors
Drug Base Name	39-40-00-10	Atorvastatin
Drug Name	39-40-00-10-10	Atorvastatin Calcium
Dose Form	39-40-00-10-10-03	Atorvastatin Calcium Tablet
GPI Name	39-40-00-10-10-03-10	Atorvastatin Calcium Tab 10 MG

 This GPI has 39 brand and generic NDCs associated with it

**EXAMPLE RESULTS**

Claims databases are in various stages of usage and development in different states across the country, yielding positive results from similar analytics programs. An article in Health Payer Intelligence reviewed some of the real-world, positive outcomes that organizations have experienced through their use of all-payer claims databases<sup>1</sup>, which included the following examples:

**Participants in certain CMS Health Care Innovation Award programs** used information gleaned from claims data analysis to cut healthcare costs, saving \$150 per beneficiary per quarter. Minnesota used payer-submitted information within its statewide all-payer claims database to find a \$2 billion CMS cost-savings opportunity in 2015.

**Minnesota officials** also identified 20,000 preventable visits and 50,000 potentially preventable visits from APCD data. The top three conditions for potentially preventable admissions included pneumonia (13%), heart failure (12.1%), and COPD (8.1%).

**Researchers at the West Health Policy Center** estimated that improvements in population health management from APCD analysis could create a \$61 billion savings opportunity for the healthcare industry.

<sup>1</sup><https://healthpayerintelligence.com/news/all-payer-claims-databases-offer-insights-into-healthcare-spending>

**CONCLUSION**

Claims and population health research can help organizations unlock crucial data to help balance the quality-cost equation and inform policy that could drive down the skyrocketing costs of care. Medi-Span offers unique tools

to help you analyze that data and uncover meaningful trends and market intelligence to support your organization’s research activities and population health needs.



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