

## How research teams are enhancing and accelerating studies

Learn how one university is using longitudinal, real-world data to supplement clinical trials and guide research priorities and funding.



**Innovative clinical trials are fueled by academic institutions and their research. But what's fueling those research teams?**

On average, it takes 10-15 years to bring a new drug to market.<sup>1</sup> And as of January 2023, there are almost 500,000 registered clinical trials worldwide.<sup>2</sup> These numbers represent an enormous amount of research, investment, and innovation in the healthcare and life sciences industries. So, what is guiding these dedicated inquiries? Access to high-quality, longitudinal, real-world data (RWD).

RWD plays a vital role in research, specifically because of the ability to observe a large population over a long, continuous, study period. The extensive patient history from RWD helps researchers write more competitive research proposals, win more grant funding, conduct more comprehensive research, and ultimately publish more frequently. So, when it comes to needing precise, high-quality data, researchers turn to MarketScan® by Merative™.

For more than 10 years, MarketScan has been a critical tool for the research team at a large university in the United States – home to globally recognized research departments that have made significant contributions in the fields of medicine, life sciences, and public health. Explore the following real-world examples and see how longitudinal RWD is helping expand clinical trials, strengthen studies, and secure funding.

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“The questions that we ask with this type of data, you really can’t do anywhere else.”

## Understand national trends and create benchmarks

The university conducts many studies every year using research-grade clinical data from their university hospitals, a network of local health systems, and their state Medicaid agency. This data is local in nature and thus researchers need to make comparisons against broader populations to understand the strength and applicability of their findings. The MarketScan data provides researchers with a large, nationally representative sample of patients from which they can observe national trends and create benchmarks for comparison with their local clinical outcomes.

As part of one ongoing study around opioid abuse, researchers use MarketScan to calculate national averages for drug use and overdoses. The researchers then compare outcomes observed in their local health system against the larger population to identify trends and opportunities for change. These insights help set targets for the state and inspire data-driven improvements.

## Expand clinical trials with real-world data

While randomized controlled clinical trials are the gold standard for clinical research, it is possible to miss important outcomes due to the small patient samples and limited study time. Using MarketScan, university researchers mimic the clinical trial inclusion criteria among patients in the real-world and create an expanded study to observe larger populations over longer periods of time.

In one study, researchers supplemented a lung cancer clinical trial of 50 patients with MarketScan, and were able to identify nearly 5,000 lung cancer patients for further observation. Another study on drug safety for patients experiencing myocardial infarction used MarketScan to extend the study window beyond what was normally feasible through clinical observation. These examples, and many more, show how robust RWD is strengthening clinical trials and enabling the inclusion of a wider group of patients.

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“We looked at a common drug’s safety when taken around the time of a myocardial infarction. The longitudinal data enabled us to follow patients for 5 years, demonstrating potentially long-term consequences that weren’t previously identified.”



## Uncover rapid insights from population signals

New molecule drugs are not the only frontier in medical research. Researchers use MarketScan to search for population signals from previously approved drugs to inform early-stage clinical experiments. When looking for unexpected clinical patterns, it is important to have as large and as strongly longitudinal of a dataset as possible. Researchers need to be able to quickly test whether the signal is valid and feel confident that the observed outcome is worth further investigation.

COVID-19 was a unique experience to test how researchers could adapt and respond to a global health crisis. Researchers at the university used the MarketScan data to study the possibility of repurposing angiotensin-converting-enzyme (ACE) inhibitors and angiotensin II receptor blockers (ARBs) for treating COVID symptoms by studying patients with existing medication use for possible protective benefits.

## Apply for grants with stronger proposals

While there is no shortage of research proposals, for many departments, there is a shortage of funding. The university relies on MarketScan data to prioritize research projects and help write more competitive study proposals to secure grant funding. At times, researchers have turned to the supportive team of Merative experts to quickly analyze the MarketScan data and identify outcomes that strengthen their proposals. By combining real-world evidence (RWE) with preliminary observations from clinical animal studies, the university has been successful in securing funding and driving research projects forward.

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“Our team used MarketScan data during COVID-19 to monitor patient outcomes and help formulate prospective research questions. The timeliness and breadth of the data helped us secure grant funding to test new hypothesis related to COVID outcomes.”

# Conclusion

Academic institutions play a vital role in the healthcare and life sciences research process. These real-world examples show how one university is using RWD to enhance clinical trials, guide research priorities, and enable researchers through strong grant funding. When university research departments succeed, patients, providers, and the broader industry all benefit from the innovation.

Real-world data is continually being used in new and exciting ways, and at the hands of brilliant researchers like the ones at this university, the sky is the limit.



## Solutions used

MarketScan® by Merative™  
[merative.com/real-world-evidence](https://www.merative.com/real-world-evidence)

## About Merative

Merative is a data, analytics and technology partner for the health industry, including providers, payers, life sciences companies and governments. With trusted technology and human expertise, Merative works with clients to drive real progress. Merative helps clients reassemble information and insights around the people they serve to improve healthcare delivery, decision-making and performance. Merative, formerly IBM Watson Health, became a new standalone company as part of Francisco Partners in 2022. Learn more at [www.merative.com](https://www.merative.com)

## About MarketScan® by Merative™

MarketScan provides deidentified, longitudinal, patient-level closed claims and specialty data for 293M+ patients sourced directly from a diverse pool of payers. It is used by industry-leading researchers to derive valuable insights pertaining to health economics and outcomes research, treatment patterns, and disease progression across the industry resulting in more than 3,500 peer-reviewed manuscripts. Learn more at [www.merative.com/real-world-evidence](https://www.merative.com/real-world-evidence)

## References

1. N-Side. What's the average time to bring a drug to market in 2022. 2022. <https://lifesciences.n-side.com/blog/what-is-the-average-time-to-bring-a-drug-to-market-in-2022> (last accessed Jan 2023)
2. Clinicaltrials.gov. Trends, Charts, and Maps. 2023. <https://clinicaltrials.gov/ct2/resources/trends> (last accessed Jan 2023)

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