



Data that makes a difference

The Optum Risk Score

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Tracy's story

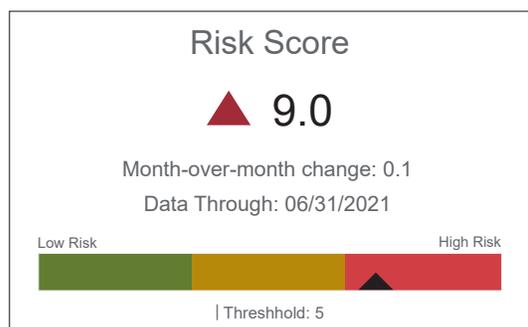
Tracy¹, a 41-year-old woman, works in a midwestern manufacturing plant. In February 2021, she fell from a platform at work, injuring her back and hip. Her primary physician placed her on a medication regimen of a low dose opioid (hydrocodone/acetaminophen) and an anti-inflammatory (meloxicam). Tracy's claim was routed to Optum for pharmacy services and her prescriptions were processed through the Optum pharmacy benefit management (PBM) programs, which include automatic routing through our Predictive Analytics.

Over the next few months, Tracy's pharmaceutical care continued. In June 2021, during the monthly clinical triage of high-risk claimants identified through the Predictive Analytics algorithms, Tracy was identified for a claim review. This analysis prompted the clinician to suggest a deeper dive into Tracy's claim, and he requested the adjuster's approval to perform a Medication Review.

The adjuster could see that Tracy's treatments were escalating, as evidenced by the high Risk Score shown on the VitalPoint® pharmacy portal.

Tracy's Risk Score was driven by multiple issues, including high-dose opioid therapy, concurrent use of a stimulant and a sedative, the addition of a private-label lidocaine-containing topical product,

her aging claim, and other demographic risk factors. The intuitive display made it easy for the adjuster to see that Tracy's plan of care needed attention, and he quickly accepted the recommendation for a Medication Review.



A Peer-to-Peer Outreach involves collegial conversation between an experienced physician and the treating doctor, which increases the likelihood that the recommended medication changes will be implemented by the prescribing doctor and promotes safer, more effective care for the injured person.

During the review, an Optum clinician reviewed Tracy's pharmacy and medical records. Due to the complexity of the case and number of high-risk medications, the clinician initiated Optum Peer-to-Peer Outreach. This level of review enabled Tracy's medications to be evaluated by an experienced, independent physician who then discussed the overall treatment plan with her treating doctor. The peer physician also

¹ The clinical details and data in Tracy's story reflect a real claim. The claimant's name has been changed to protect privacy.

provided recommendations on how to resolve the identified therapeutic issues and collaborated with the provider on next steps and effective communication paths.

As a result of these actions, Tracy's doctor made several changes to her medication regimen. By June 2022, the Risk Score on Tracy's claim had dropped from 9.0 to 2.3. The beneficial changes to her therapy included elimination of the stimulant, reduction in the total daily opioid dose, a change to an over-the-counter lidocaine patch, and removal of therapy duplication surrounding the use of multiple antidepressant medications.

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The ongoing challenge: turning pharmacy data into actionable information

Through processing prescriptions and managing pharmaceutical care, PBMs have access to a wealth of data: patient demographics, prescriber information, pharmacy information, drug utilization and information, network and formulary structures, insurance information, and payment information.

By using this data clinically, the potential to change the trajectory of a patient's health is dramatically increased, especially through the intersection of carefully selected patient data with clinical review. Using that same data in aggregate, the health of patient populations may be positively influenced – leading to better therapeutic and economic outcomes for the individual and the payer. Analytic tools, combined with appropriate clinical interventions, can be used to educate providers, modify prescribing patterns, encourage more efficacious medication regimens, reduce the length of treatment, and improve overall patient health. For payers, this simplifies adjuster workflows, educates internal stakeholders, enables powerful reporting and program improvements, and lowers costs.

In short, by applying data analytics to uncover issues and recommend future actions, PBMs can significantly affect patients' recovery for the better.

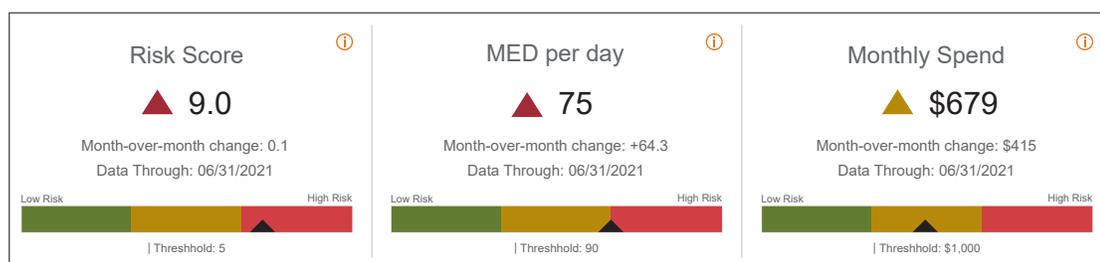
Optum is focused on powerful information delivery – data isn't useful if the consumer doesn't see it or know what to do with it.

However, in using pharmacy claims data to highlight actionable information, a PBM company could still miss the mark. Optum is very careful not to do this. We know that if the presentation of information is voluminous, difficult to find in reports or portals, or scattered across displays and pages, it may be hard to interpret. Even worse, the actionable components may be hidden, allowing them to be completely missed. This leads to wasted time, inefficient benefit management, delivery of misinformation or misunderstandings, and a missed opportunity to positively affect the patient's health and recovery.

What is the Optum Risk Score?

Optum Predictive Analytics use one of the industry's largest datasets, in combination with clinical guidelines and benchmarks, to support clinical intervention needs. As part of the analysis, subject matter experts curate a trigger-based model to identify high-cost claims and potentially inappropriate therapies within a client's claimant populations.

In 2015, an Optum team of clinical pharmacists and statistical data scientists recognized the need for a better way to alert payers and adjusters to high-risk claims early in the claims cycle. When looking at claim histories, they noticed that 5% of claims were still active three years later. Their first objective was to find a way to intervene on that subset of claims to prevent them from becoming chronic. This quickly led to the need to assign risk values to claims of all types, no matter how old.



After extensive development, the Optum team introduced a solution: a single “Risk Score,” based on a proprietary set of criteria systematically analyzed on an ongoing basis. The value is derived from an algorithmic calculation based on a claimant’s in and out of network pharmacy transactions, compiled and checked against 37 different risk factors, then weighted to generate a single score of 0-10. The resulting Risk Score accounts for medical, clinical, and financial risk.

The process evaluates an injured person’s pharmacy transactions against 37 risk factors and synthesizes the results into one number (Risk Score) on the adjuster portal.

The Optum Risk Score breaks new ground in the industry by using this process to identify claimants at the highest risk for delayed return to function and work, a potentially poorer outcome, and a higher cost to the payer. The score is displayed in our adjuster portal at the claim level: green indicates low risk, yellow indicates medium risk, and red indicates high risk. Risk Scores are continuously displayed on the claims dashboard, with a twelve-month history available to illustrate risk trends over time.

The following are examples of risk factor categories within the 37 categories used to evaluate transactions:

- **Utilization Concerns:** Physician dispensing; high-cost claim; use of non-typical medication
- **Potential Misuse:** Multiple pharmacies; multiple prescribers; prescriber identified in Optum Fraud Waste and Abuse program
- **Therapeutic Concerns:** Opioid use (dose and duration); benzodiazepine use; sedative use, stimulant use; anti-inflammatory use
- **Use of Dermatologicals:** Use of specialized formulations or delivery methods that have therapeutic alternatives available

The Risk Score alerts adjusters and others to a potentially high-risk claim. This identification is critical in targeting high-risk claims early, before spend and severity increase. By providing early alerts to adjusters about the need to involve a medical resource, the claim's future trajectory can be transformed from a high-cost, long-term claim to one with earlier resolution and lower costs through use of more therapeutically and economically appropriate medications. Given the combination of criteria used to calculate it, the Risk Score is as significant in contributing to a reduction in pharmacy costs as it is keenly focused on the health and safety of the injured person.



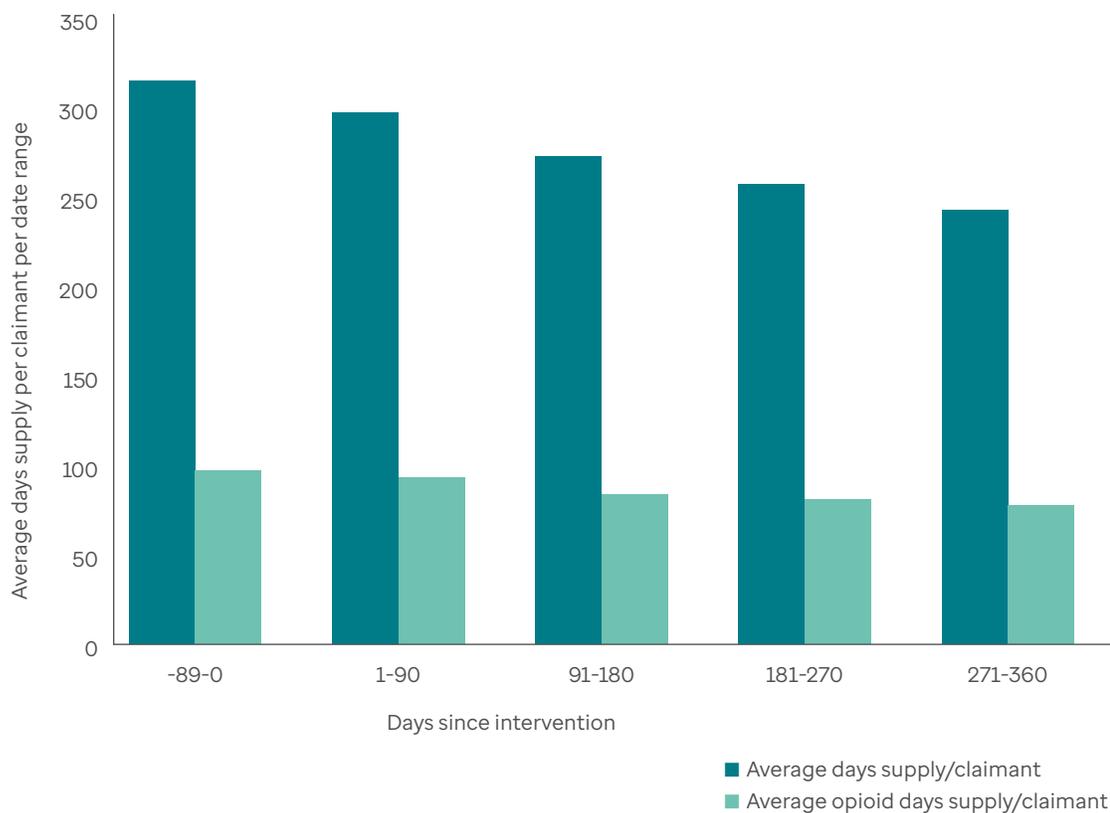
How does the Risk Score drive outcomes?

By flagging claims that need further evaluation and intervention, the Risk Score produces dramatic improvements, such as reductions in overall pharmacy drug utilization.



Optum reporting shows that every 1 point decrease in Risk Score results in **\$150 per month** reduction in average spend

Rx utilization pre and post intervention



Conclusion: data for good

Returning to Tracy's story, the automated review of her claim through Optum Predictive Analytics quickly showed that she was at risk. But the information could have gotten lost along the way. With the Risk Score clearly in front of the adjuster, he could recognize quickly that intervention might be needed and trigger a series of events that reduced Tracy's risk and improved her health. One year after her injury, Tracy was back at work performing light duty tasks; without intervention, her health outcomes would likely have been much less favorable. By using the available information to identify a potentially serious situation, and then taking swift and decisive action to work with her prescriber, Optum was able to highlight changes that placed Tracy on a better path to recovery.

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About the authors



Tron Emptage, RPh, oversees the comprehensive suite of Optum clinical programs designed to help payers gain more control over medical costs and achieve better outcomes for injured persons. With nearly 30 years of experience, Tron develops and manages key program components, such as medication plans and formularies, utilization reviews, physician outreach, clinical intervention, and pharmacist and nursing support.

Tron earned his Bachelor of Science in Pharmacy from The Ohio State University and a Master of Arts degree from Ashland University. He shares his clinical management insights as a frequent speaker at leading industry conferences and in thought leadership on topics ranging from prescription drug misuse to pharmacy management strategies.



Matthew Foster, PharmD is the Director of Clinical Pharmacy Programs and Formulary for Optum Workers' Comp. In this role, he works closely with our clinical teams and clinical liaisons to provide enhanced and new clinical services for Optum clients. Matt has substantial experience evaluating pharmacotherapeutic issues and conducting therapeutic reviews and interventions. He has developed and implemented numerous clinical programs to improve the medication therapy of injured persons.

Matt is a Clinical Assistant Professor with the University of Florida College of Pharmacy and Lee County College of Medicine. He received his Doctor of Pharmacy degree from the University of Florida College of Pharmacy.



Trevor Johnson is a data-driven analytics professional with over 10 years of experience delivering a wide array of industry-leading analytic solutions, from data mining to predictive modeling. At Optum Workers' Comp and Auto No-Fault, Trevor works directly with the Optum clinical team to provide data analytics and insights for clients and internal departments. As part of his role, he also develops and maintains analytic products that produce key information, such as the identification of injured persons who are candidates for the Optum clinical intervention program and data analyses used to provide annual pharmacy trend reporting.

Trevor earned a Bachelor of Science in Statistics with a minor in Finance from Miami University.

About Optum Workers' Compensation and Auto No-Fault Solutions

Optum Workers' Compensation and Auto No-Fault Solutions collaborates with clients to lower costs while improving health outcomes for the injured persons we serve. Our comprehensive pharmacy, ancillary, managed care services, and settlement solutions, combine data, analytics, and extensive clinical expertise with innovative technology to ensure injured persons receive safe, appropriate and cost-effective care throughout the lifecycle of a claim. For more information, email us at expectmore@optum.com.

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