



From standardization to system-wide optimization

UCHealth's commitment to quality drives efficiency, consistency, and growth across its MRI network

About UCHealth

Based in Aurora, Colorado, and comprising a network of nationally recognized hospitals, clinics and healthcare providers in Colorado, southern Wyoming, and western Nebraska, UCHealth strives to be the health system of choice in its region for both clinicians and patients. Identifying opportunities for savings while maintaining a high standard of care across its operations is essential to the health system's ongoing success.

The challenges

As part of its commitment to expand access to quality care, UCHealth grew its network with three new outpatient imaging centers and a small hospital. In doing so, the system faced increasing complexity in managing MRI operations efficiently. The team needed to balance expansion with consistent performance, standardized protocols and streamlined staff training across sites.

Maintaining MRI fleet performance in this decentralized environment placed heavy demands on staff. A dedicated protocol manager worked after hours, spending up to a week per scanner to review and update protocols—an annual task repeated across all scanners.

At the same time, ensuring consistent image quality proved difficult. Protocol updates required time-consuming identification and coordination, often taking months to complete. Without reliable data on MRI exam start and end times, physicians had limited visibility into opportunities to increase patient throughput.

The solutions

As part of an eight-year Value Partnership with Siemens Healthineers, UCHealth embarked on a multi-phase initiative to modernize and optimize its MRI operations. Over several years, the health system standardized its MRI fleet, implemented a digital health platform to unify operational and clinical data, and adopted advanced deep learning reconstruction technology. Together, these investments laid the foundation for greater efficiency, higher image quality and consistent performance across all sites, empowering staff to deliver faster, more reliable diagnostic care.



Standardizing and streamlining MRI operations

Over three years, UCHealth invested in 17 new MRI scanners and implemented teamplay, a digital health platform that provides instant, centralized access to operational and clinical data to help providers optimize performance and deliver higher-quality care.

This standardization of MRI scanners and functionalities simplified training for technologists, who were now able to cover shifts and locations system-wide. In addition, real-time protocol changes could be efficiently pushed to all scanners.

Vicki Crist, associate radiology manager from UCHealth, emphasizes the transformation:

“Protocol management and standardization used to take days and involve physical travel with a jump drive. Now, with teamplay, we can remotely access and distribute the protocols to scanners across multiple regions hours apart.”

Phase 1

Upgrading and standardizing MRI scanners system-wide

Phase 2

Implementing teamplay to expedite and standardize staff training and equipment protocols

Phase 3

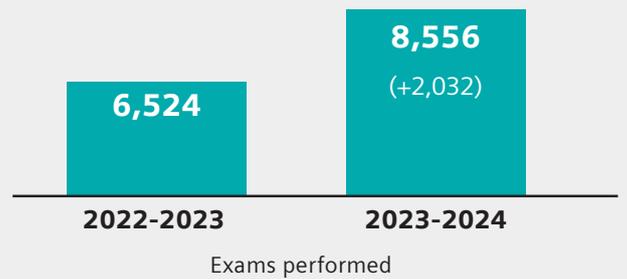
Test Case: addition of Deep Resolve, a deep learning technology, to improve image quality, reduce scan times and unlock capacity

Phase 4

Successful proof of concept leads to system-wide rollout of Deep Resolve to all MRI scanners

Result: 3,400 more scans per month across UCHealth

Expanded MRI Scanning Capacity



In just one year, Deep Resolve helped UCHealth increase MRI throughput by more than 2,000 scans on a single system.

Improving image quality and expanding capacity

Interested in further efficiencies, UCHealth decided to explore the value of Deep Resolve, a deep learning reconstruction technology that uses advanced analytics and deep learning to reduce noise and improve image sharpness and resolution. Deep Resolve also optimizes MRI performance through neural networks, enhancing image quality and further reducing exam times, potentially decreasing the need for anesthesia.

Through a pilot program, Deep Resolve functionality was added to one MRI system at a UCHealth location in Englewood, Colorado. In compelling proof-of-concept results, many exams that once required 45 minutes were completed in 30, allowing the Englewood location to handle significantly greater patient volume.

“This initiative shifted from a site-level project to a true system opportunity, allowing us to open capacity, reduce wait times and deliver better access across UCHealth.”

- David Daugherty, Jr, System Director of Imaging, UCHealth

The results

UCHealth moved to roll out Deep Resolve to all its MRI locations by the end of 2025. Through thoughtful, phased implementation, UCHealth transformed its MRI service line into a model of operational excellence. The combination of fleet standardization, centralized data access and AI-powered imaging not only improved clinical consistency, but also unlocked significant capacity, adding thousands of scans per month. The result: measurable gains in revenue potential, reduced exam times and a sustainable growth model that strengthens both patient access and provider performance across the system.

22% MRI volume growth

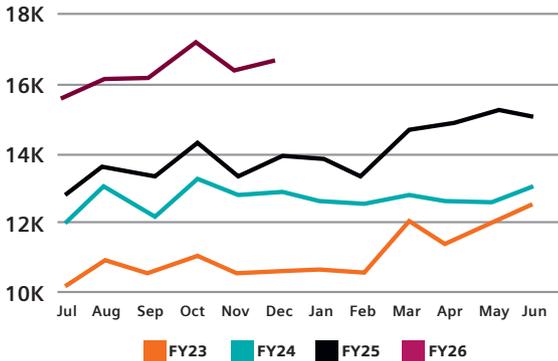
\$16M+

estimated revenue impact
(Achieved over two fiscal years)

“Every new MRI we add costs \$3.5–\$4 million in construction and equipment. By creating 25% more capacity with our existing fleet, we’re expanding access without the substantial capital outlay.”

- David Daugherty, Jr, System Director of Imaging, UCHealth

Volume by Month and Fiscal Year



Value Partnerships

Value Partnerships with Siemens Healthineers are long-term, performance-driven relationships based on a shared vision of the future of healthcare. These strategic partnerships address the industry’s top challenges by jointly developing innovative, sustainable solutions that enable providers to transform the system of care, generate value and reach their full potential.

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