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Situation Analysis

Radiologists at Avera Health, based in South Dakota, were working in a siloed structure in five rural regions of the state, which increased turnaround times for medical imaging review and interpretation, limited collaboration and alignment opportunities and increased costs.



Project Goals

- Implement a standardized process for imaging study interpretation services.
- Decrease turnaround times for medical imaging reviews.
- Improve quality and increase efficiency to reduce costs and enhance team education, collaboration and resilience.

Actions Taken

- Established one shared picture archiving and communication system (PACS) across the health system.
- Created a standard peer review process in PACS with a systemwide peer review committee.
- Standardized the approach, contracts and pricing of medical imaging needs across all of Avera's care sites.
- Deployed artificial intelligence-assisted documentation tools and pixel-based AI models in image processing.

Positive Outcomes

- Reduced costs by over \$2 million, in part by ending duplicative overreads of images.
- Increased number of imaging studies peer-reviewed to nearly 22,000 annually.
- On track to generate 200,000 annual impressions through AI automation, saving approximately 10 seconds per report.
- Maximized capacity in all regions for medical imaging review and interpretation



