

# Prostate

## Reducing workflow and read-time of prostate MRIs with DeepHealth’s AI-assisted software

Research performed by Dr. Evan Kaminer, MD, FACR  
Medical Director Hudson Valley Radiology Associates



Can AI-assisted advancements in prostate imaging software save significant time in outpatient radiology centers? To find out, the workflows of two centers were analyzed before and after the installation of DeepHealth’s prostate solution software.

Time was reduced in the scan evaluation process (radiologists’ read-time) by 14.1% over two centers between 2023 and 2024 with 8 out of 9 radiologists decreasing their evaluation time. With the software’s automatic targeting for fusion biopsies, time was also reduced in the overall workflow for biopsy-recommended cases by 232 hours (6 weeks), or 37%.

### Setup

DeepHealth analyzed two workflows from two RadNet affiliated centers, each with a different number of reads per year and all using multi-parametric combination images (mpMRI). In total, 3,931 cases were analyzed.

DeepHealth’s AI-assisted prostate evaluation software was installed in January 2024. To determine whether the software could save significant time in radiologists’ reading time, the median time spent evaluating MRIs at the two centers was monitored and analyzed before and after the software installation (January–December 2023 without AI assistance and February–October 2024 with AI assistance).



	Readers	Cases 2023	Cases 2024	Total Cases
Lenox Hill Radiology (LHR)	5	1330	1708	3038
Hudson Valley Radiology Associates (HVRA)	4	430	463	893
Exclusions: Readers(2) who reads-per-year fell grossly outside of the mean Sessions exceeding 20 minutes (14% of total cases)				

Contact us to learn more.

[www.deephealth.com](http://www.deephealth.com)

Radiologist reading time savings

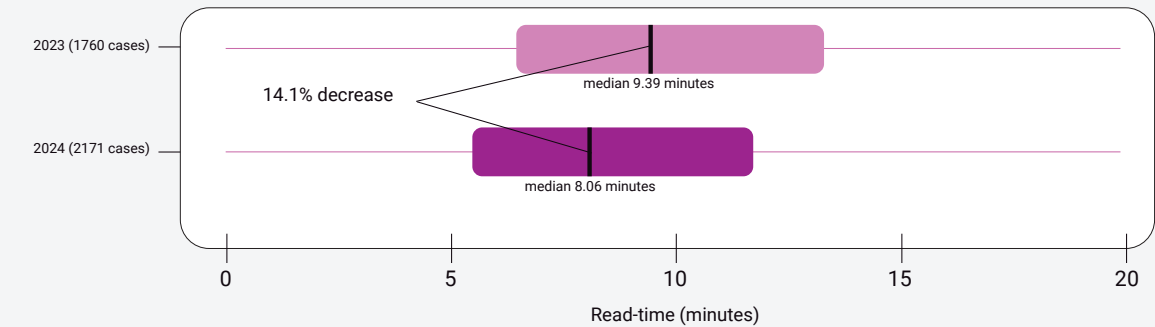
When analyzing MRI evaluations (from opening the images to finishing the report), time was reduced by 14.1% over the two centers from 2023 to 2024.

Hudson Valley Radiology Associates, with similar volumes to that of most centers in the United States,

had a 16.3% decrease in time. Lenox Hill Radiology, a specialized radiology center, experienced a 13.1% decrease.

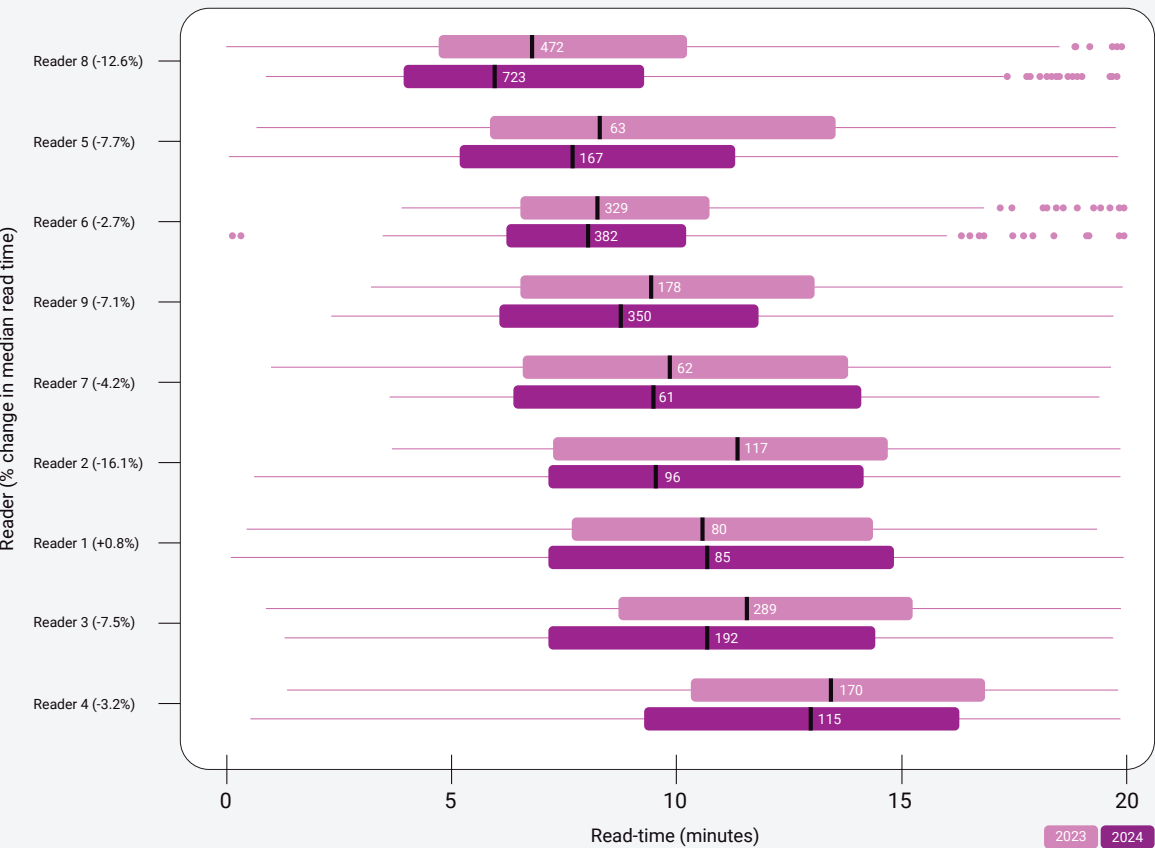
On an individual-basis, 8 out of 9 radiologists decreased their evaluation time.

Combined LHR/HVRA Read Times before (2023) and after (2024) installing DeepHealth's prostate solution software



Mann-Whitney U test to compare medians shows significant difference ( $p=1.2e-15$ ,  $W=2193663$ , effect size: 0.14).  
Please note that no covariate testing has been done yet which can change results.

Prostate Read Times per reader before (2023) and after (2024) installing DeepHealth's prostate solution software



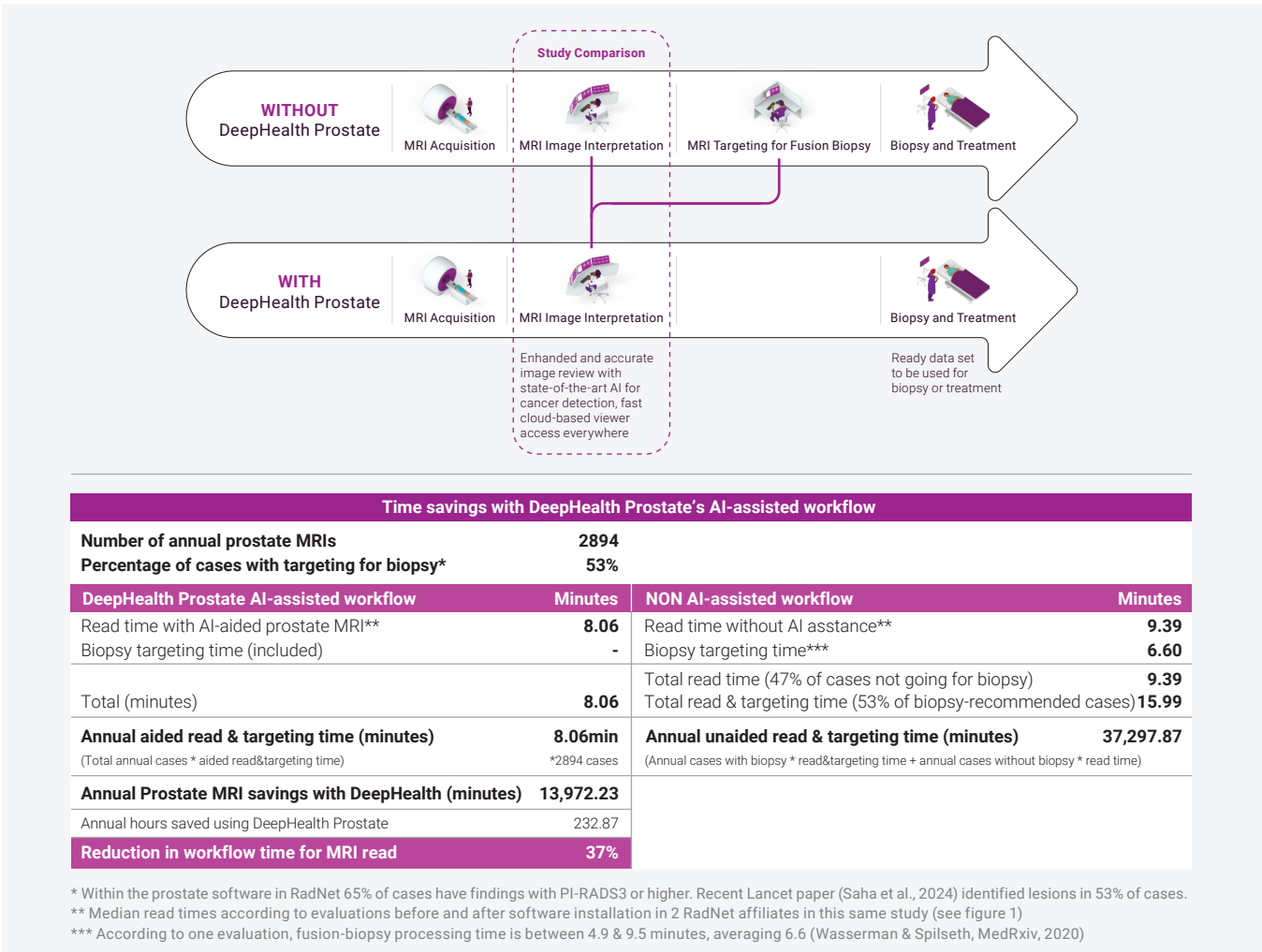
Contact us to learn more.

[www.deephealth.com](http://www.deephealth.com)

Full workflow time savings

In addition to enhancing MRI images to accelerate read-time, DeepHealth Prostate’s software automatically performs MRI targeting for fusion biopsies, compatible with most fusion biopsy machines. This eliminates the time spent on manual targeting for biopsy-recommended cases (roughly half of prostate cases) and further optimizes the overall workflow timeline.

To model this additional savings, figures (taken from literature) were added to the non-assisted read-time for biopsy-recommended cases in 2024. This resulted in an expected time-savings of 232 hours (6 weeks) and a workflow savings of 37%.



Customized data results

Custom data can be used to calculate estimated time savings, depending on the number of MRIs a center performs per year and those requiring biopsy.

Time-saving example scenarios

Cases	Biopsy Targeting	Hour saved	Workflow reduction
500	53%	40.2	37%
1000	53%	80.4	37%
500	30%	27.6	29%
1000	30%	55.2	29%

Contact us to learn more.

www.deephealth.com