

A Novel Methodology to Use Utilization Benchmarking to Drive Reductions in Utilization and Health Care Costs



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Our Goal

To maximize efficiency and reduce health care costs while maintaining quality of care.

Background

Our testing has secondary effects:

- Direct patient harm (radiation, contrast, needle sticks, incorrect meds, etc.)
- Increased direct costs
- Risks of false positive testing
- Longer ED stays

There appears to be significant variation in practice within our group with regards to evaluation of complaints.

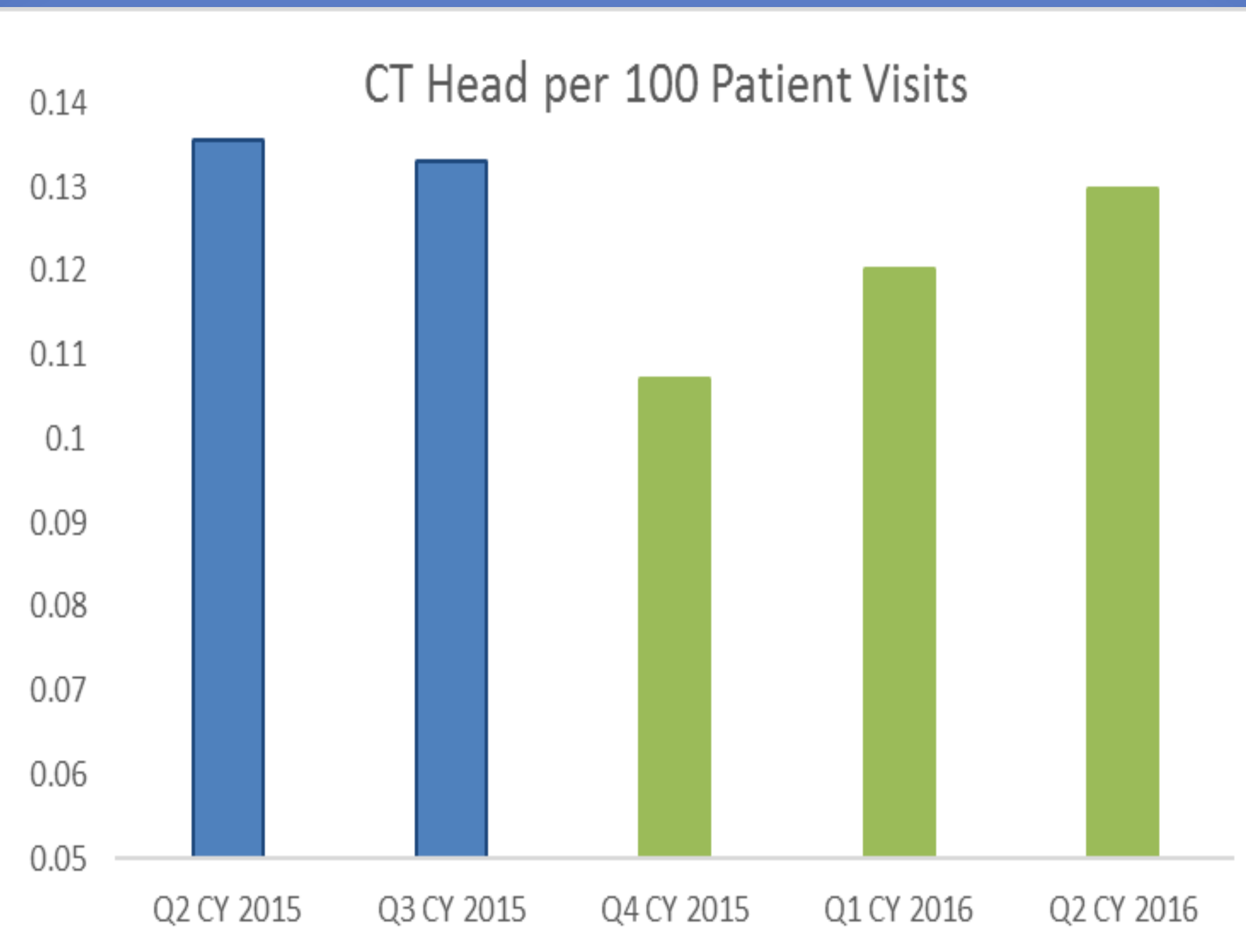
This variation results from:

- Formal Training
- Personal Experiences
- Institution specific protocols
- Concerns of litigation

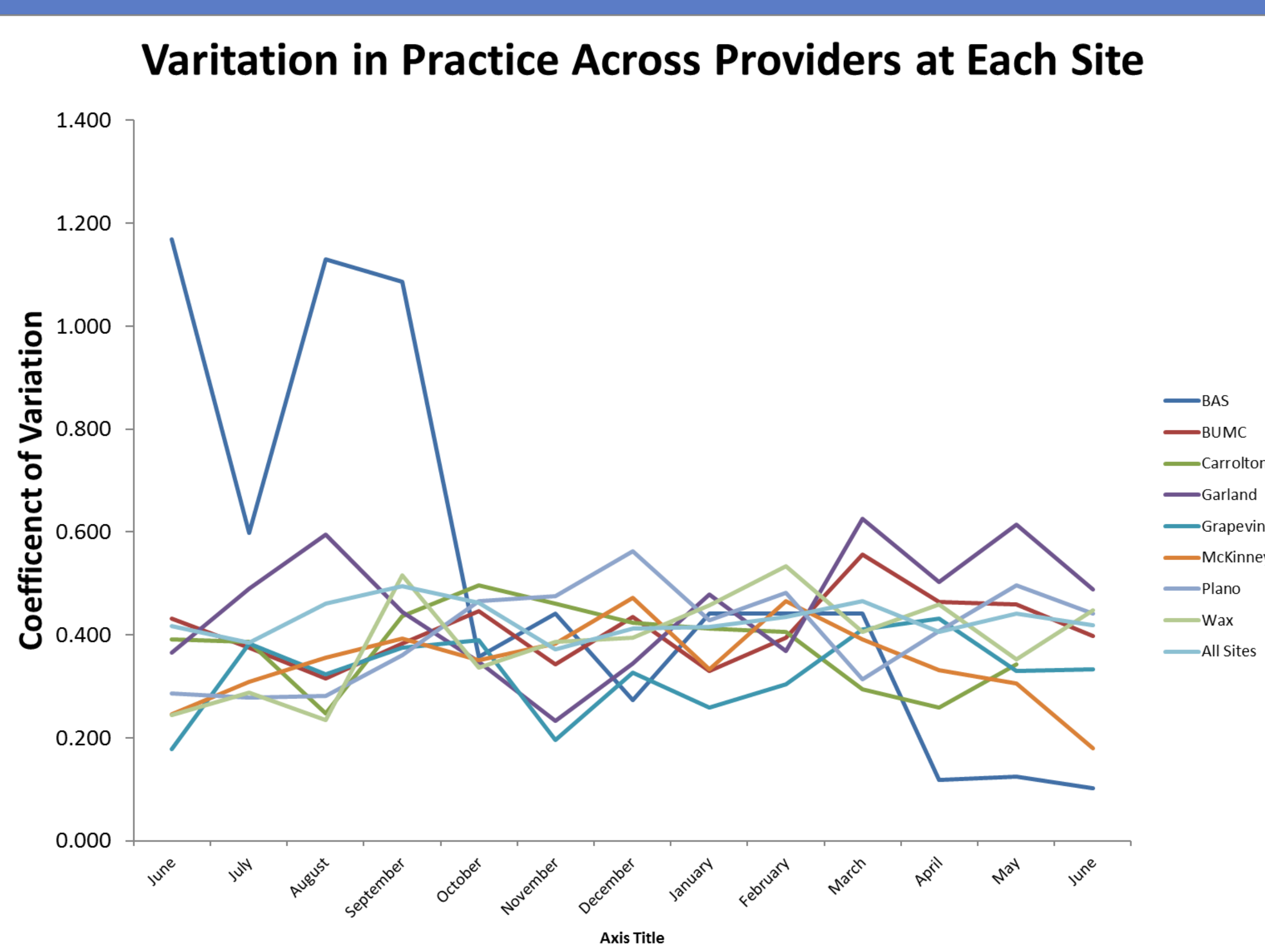
In-depth utilization reviews are usually very time and resource intensive.

Utilization reviews help to identify common practice patterns and decrease practice variation by benchmarking providers to their peers.

We developed a methodology that allows identification of variation in practice without requiring an in-depth review of each chart.



CT Head Ordered Per 100 Patient Visits			
Patient Group	CT rate	Relative drop	P
Baseline	13.4	---	
Post Implementation	11.9	12.3%	0.017



Methodology

- 1) Query total number of an item (CT head w/o) ordered within a given timeframe. Non provider ordering (APP, residents, RN, off service) are distributed across providers equally.
- 2) Normalize by # of patient encounters.
- 3) Determining group's average and standard deviation.
- 4) Outliers are then identified.
- 5) This variation was re-calculated on a monthly basis and provided to each provider as a rolling average.
- 6) Outliers were provided further education on validated clinical decision rules by their site EM medical director.

Results

Over the 9 months following implementation, there was an absolute drop of 12% in CT head utilization across the system ($p < 0.017$)

This corresponds to \$1.1 million in prevented imaging by reducing utilization by 560 scans

There was no noted increase in missed diagnosis as a result of this reduction

Variation in practice was markedly improved at some sites, while others saw little change.

We also noticed a waning impact of the program as time progressed: provider practice trended back to baseline. This is thought to be secondary to reduced focus on the project. It is possible this could be overcome by re-education

Conclusion

This utilization methodology provides an efficient way to benchmark providers to their peers and reduce overall utilization of radiology imaging.